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Regional Reporters:
East Coast: J. Richard Shaner, P.O. Box 1476, Morristown, NJ 07962-1476. (201) 428-2902
Midwest: Angel Abcede, 950 Lee St., Des Plaines, IL 60016. (312) 296-0770
South: Glenn Geigler, 950 Lee St., Des Plaines, IL 60016. (312) 296-0770
West: Mark Emord, P.O. Box 8130, Anaheim, CA 92812-0130. (714) 774-5598

Looking Things Over

Here are a few observations culled from the mountain of facts, figures and trends that comprise this year's NPN Factbook:

—If oil companies were ballplayers, it would be said that most enjoyed a "career year" in 1988. Many of the larger companies had increases in both total and downstream earnings that were nothing short of phenomenal (See page 17). Exxon's domestic downstream profits leaped by almost 2,000% last year. Mobil, the No. 2 company, improved its downstream earnings by 370%. Texaco, fighting back from its Pennzoil nightmare, had a downstream profit increase of 750% in 1988. Each of these three companies took in more than $1-billion in refining and marketing profits last year.

—The momentum of '88 appears to be spilling over into 1989. One usually reliable barometer or oil industry activity is the trend in world crude oil prices (See page 119). From a low average of a little over $10 a barrel in late summer and early fall last year, the price soared about $5 a barrel in a few short months to a February 1989 average of $15.60. As everyone knows that price continues to spin upward and, combined with other supply/demand factors, will undoubtedly result in still higher oil company sales and earnings.

—Trouble-on-the-Horizon department: The latest forecast from Independent Petroleum Assn. of America (Page 149) says annual petroleum imports could exceed domestic crude oil production for the first time in 12 years. The U.S. is "rapidly approaching over dependence on imported oil," IPAA says.

—Are major convenience store chains losing ground to oil marketers in the battle for gasoline sales? Could be, says West Coast C-store marketer John Roscoe, noting that the traditional C-store gasoline units are not keeping pace with modern and upgraded oil company units (Page 134).

—In an ocean of industry numbers published every year, there is one statistic that continues to elude capture; namely, accurate, documentable information on the number of retail gasoline outlets in the U.S. So be sure to catch Executive Editor J. Richard Shaner's thought-provoking essay on the subject beginning on page 126.

—Donald M. Smith

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Ranking The Top 22 Marketing Companies (a)

	Total Assets		Gross Revenues		Net Income		Sales Ranking Among Top 500	
	1988	1987	1988	1987	1988	1987	1988	1987
Exxon	1	1	1	1	1	1	3	2
Mobil	2	2	2	2	2	4	6	5
Chevron	3	3	4	4	4	5	11	11
Amoco	4	6	5	5	3	3	12	14
Shell	5	5	6	6	9	6	13	13
Texaco	6	4	3	3	8	22	8	7
BP America	7	8	8	7	5	2	22	22
Tenneco (c)	—	9	9	9	10	21	24	21
Arco	8	7	7	8	6	7	17	18
Phillips	9	11	11	11	11	19	31	32
Conoco (b)	10	13	10	10	14	10	NR	NR
Unocal	11	12	12	13	13	12	32	46
Marathon (b)	12	14	14	14	12	8	NR	NR
Sun	13	10	13	12	22	9	48	43
Coastal	14	15	16	15	17	14	54	57
Amerada Hess	15	16	17	17	19	11	110	87
Pennzoil	16	19	21	21	7	18	202	206
Ashland	17	17	15	16	15	13	55	60
Kerr-McGee	18	18	19	19	20	17	157	156
American Petrofina	19	21	20	20	18	16	164	161
Murphy	20	20	22	22	21	20	253	235
Citgo (b)	21	22	18	18	16	15	NR	NR

(a) As ranked by Fortune 500 April, 1989; (b) Neither Conoco or Marathon, as wholly-owned subsidiaries, issue full financial statements as they are not ranked by Fortune; The same applies to Citgo, which is a privately-owned corporation; (c) Tenneco has withdrawn from petroleum marketing; NR – Not ranked by Fortune 500.

Exxon Keeps Big Lead in Assets, Amoco Moves Up to Fourth

In 1988, Exxon firmed up its position as the No. 1 company in the U.S. petroleum business, with total assets at year's end that exceeded the combined assets of the No. 2 and No. 3 largest oil firms—Mobil and Chevron. That was pre-Valdez, of course, but that unhappy occurrence is unlikely to cause even a minor disruption in Exxon's continued commanding position among U.S. oil marketers.

Not that Exxon grew all that much last year, asset-wise. The company's total assets increased a miniscule 0.3% to 74.3-billion in 1988, compared to a 6.6% increase in 1987. Still, Exxon's total was bigger than the combined assets of Mobil ($38.8-billion) and Chevron ($34-billion) by more than a billion dollars. This was mainly because the assets of those two companies experienced a modest shrinkage in 1988, by 3.6% and 0.4% respectively.

One company that added significantly to its corporate worth last year was Chicago-based Amoco, which improved its asset ranking from No. 6 to No. 4 with almost a 20% increase over the previous year (see table on the following page). Major components of this asset growth included the acquisitions by Amoco of Canada's Dome Petroleum along with certain Tenneco properties.

Texaco, now leaner and meaner following its Pennzoil ordeal and several major asset sales, dropped from fourth to sixth in the overall asset ranking, lowering its corporate value by more than $7-billion to $26.3-billion. However, the company also bounced back from a dismal last place ranking in net income in 1987 to a very respectable No. 8 position on the 1988 chart.

(Continued on next page)

Oil Company Rankings by Marketers With

	Assets (a) (in billions of dollars)				
	1988	1987	1986	1985	1984
Exxon	**$74,293**	$74,042	$69,484	$69,160	$63,278
Mobil	38,820	40,272	39,412	41,752	**41,851**
Chevron	33,968	34,101	34,853	38,889	**45,404**
Amoco	**29,919**	25,122	23,706	25,198	25,734
Shell	27,169	**27,571**	26,214	26,528	23,729
Texaco	26,337	33,773	34,940	37,703	**37,774**
BP America	22,452	**22,807**	20,169	18,330	17,487
Tenneco (b)	—	22,322	18,021	**20,437**	18,205
Arco	21,514	22,890	21,604	20,279	21,952
Phillips	11,968	12,111	12,403	14,045	**16,955**
Conoco	9,745	9,146	9,073	**14,115**	13,497
Unocal	9,508	10,062	10,246	**10,797**	10,203
Marathon	8,966	9,091	**11,022**	10,074	9,949
Sun	8,616	12,580	12,396	**12,923**	12,789
Coastal	7,865	7,989	7,887	**8,258**	3,295
Amerada Hess	5,372	5,305	4,914	6,219	**6,353**
Pennzoil	**4,480**	2,805	3,369	3,300	3,243
Ashland	**4,254**	4,074	3,805	3,928	4,037
Kerr McGee	3,123	3,132	3,090	3,702	3,771
American Petrofina	**2,356**	1,836	1,777	1,817	1,706
Murphy	2,068	2,067	1,980	2,661	2,685
Citgo	1,343	1,191	1,209	1,274	1,246

(a) **Boldface** totals indicate peak years of individual companies.
(b) Tenneco has withdrawn from petroleum marketing.

(Asset Values, continued)

At the same time, Pennzoil, flush with its Texaco settlement cash, moved from 19th to 16th place in the rankings with a phenomenal 59.7% asset growth. Pennzoil also jumped from No. 18 to No. 7 in the net income ranking.

With Tenneco's withdrawal from petroleum marketing last year, most of the companies down the ladder automatically moved up a rung or two. Notable among these were the improvements of Phillips (No. 11 to 9), Conoco (13 to 10), Marathon (14 to 12) and American Petrofina (21 to 19). Petrofina's asset worth increased 28.3% in 1988. Sun, however, dropped three spots to No. 13 following the divestiture of some marginal E&P properties and some other downsizing moves.

Although several companies improved their rankings in 1988, many saw their total asset base shrink somewhat for the year. Thirteen out of the 21 firms listed in these tables ended the year with asset totals smaller than at the beginning of the year. Depressed crude oil prices throughout much of 1988 undoubtedly contributed to this decline, much the same as the crude price "crash" lowered the asset values of virtually every company in the 1986 rankings.

You can always expect to see half a dozen or so major oil companies among the top 20 in total sales in the annual Fortune magazine ranking of the 500 leading U.S. corporations. Last year was no exception, with Exxon (No. 3), Mobil (No. 6), Texaco (No. 8), Chevron (No. 11), Amoco (No. 12), Shell (No. 13) and Arco (No. 17) all firmly entrenched among the elite 20. Except for Amoco, however, the Fortune 500 rankings of most of those companies slipped a notch in 1988.

Among the other majors, Unocal made the biggest jump in the Fortune 500 derby for 1988, moving from No. 46 all the way up to No. 32. Phillips, Sun, Ashland, Pennzoil and Coastal also improved their Fortune 500 rankings in the past year.

Since Tenneco is no longer a major player in the oil business, the company is not shown in the rankings for 1988. However, Tenneco's prior year rankings and assets are included in order to keep the pecking order of the companies in proper sequence.

Assets of $1-billion or More

1983	% Change '88 vs. '87	'87 vs. '86	'86 vs. '85	'85 vs. '84	Ranking by Year 1988	1987	1986	1985	1984
$62,963	0.3%	6.6%	0.5%	9.3%	1	1	1	1	1
37,022	(3.6)	2.2	(5.6)	(0.2)	2	2	2	2	3
24,010	(0.4)	(2.2)	(10.4)	(14.3)	3	3	4	4	2
25,805	19.1	6.0	(5.9)	(2.1)	4	6	6	6	5
22,169	(1.5)	5.2	(1.2)	11.8	5	5	5	5	6
27,199	(22.0)	(3.3)	(7.3)	(0.2)	6	4	3	3	4
16,362	(1.6)	13.1	10.0	4.8	7	8	8	9	9
17,994	—	2.7	(11.8)	12.3	—	9	9	7	8
23,282	(6.0)	6.0	6.5	(7.6)	8	7	7	8	7
13,094	(1.2)	(2.4)	(11.7)	(17.2)	9	11	11	11	10
NA	6.5	(29.6)	(35.7)	4.6	10	13	10	10	11
9,288	(5.5)	(1.8)	(5.1)	5.8	11	12	14	13	13
9,332	(1.4)	(17.5)	9.4	1.3	12	14	13	14	14
12,466	(31.5)	1.5	(4.1)	1.0	13	10	12	12	12
3,338	(1.6)	1.3	(4.5)	150.6	14	15	15	15	18
6,217	1.3	8.0	(21.0)	(2.1)	15	16	16	16	15
3,517	59.7	(16.7)	2.1	1.8	16	19	19	19	20
4,108	4.4	7.1	(3.1)	(2.7)	17	17	17	18	17
3,806	(0.3)	1.4	(16.5)	(1.8)	18	18	20	21	19
1,399	28.3	3.3	(2.2)	6.5	19	21	22	22	22
2,792	0.0	4.4	(25.6)	(0.9)	20	20	21	20	21
1,392	12.8	(1.5)	(5.1)	2.2	21	22	23	23	23

Note: Diamond Shamrock split itself into upstream and downstream companies in 1986 and the downstream entity, Diamond Shamrock Refining and Marketing, had assets of less than $1-billion in each of the last two years. The company, therefore, has been removed from the above table and the ranking assigned to the company (see "Ranking by Year") has been deleted.

Assets—Peak Years vs. 1988

(in billions of dollars)

	Peak Year	Peak Year Total	1988	% Chng. '88 vs. Peak
Exxon	1988	$74.293	$74.293	0.0%
Mobil	1984	41.851	38.820	(7.8)
Chevron	1984	45.404	33.968	(33.7)
Amoco	1988	29.919	29.919	0.0
Shell	1987	27.571	27.169	(1.5)
Texaco	1984	37.774	26.337	(43.4)
BP America	1987	22.807	22.452	(1.6)
Tenneco	1985	20.437	(a)	(a)
Arco	1983	23.282	21.514	(8.2)
Phillips	1984	16.955	11.968	(41.7)
Conoco	1985	$14.115	$9.745	(44.8%)
Unocal	1985	10.797	9.508	(13.6)
Marathon	1986	11.022	8.966	(22.9)
Sun	1985	12.923	8.616	(50.0)
Coastal	1985	8.258	7.865	(5.0)
Amerada Hess	1984	6.353	5.372	(18.3)
Pennzoil	1988	4.480	4.480	0.0
Ashland	1988	4.254	4.254	0.0
Kerr-McGee	1983	3.806	3.123	(21.9)
American Petrofina	1988	2.356	2.356	0.0
Murphy	1982	2.990	2.068	(44.6)
Citgo	1981	6.049	1.343	(b)

(a) Tenneco has withdrawn from petroleum marketing.

(b) Not comparable. Citgo was taken over in 1982 and many of its assets were absorbed elsewhere.

Oil Company 1988 Annual Reports

Financial

	Gross Sales-Operating Revenues			Net Income			Net Income % of Gross Sales	
	(add 000)			(add 000)				
	1988	1987	% Change	1988	1987	% Change	1988	1987
Amerada Hess Corp.	$4.263.544	$4.784.598	(10.9)	$124.217	$229.860	(46.1)	2.9	4.8
American Petrofina	2.634.706	2.484.000	6.1	132.900	83.284	59.5	5.0	3.4
Amoco Corp.	21.150.000	20.174.000	4.8	2.063.000	1,360.000	51.7	9.7	6.7
Ashland Oil, Inc.	8.196.000	6.990.000	17.3	184.000	133.000	38.3	2.2	1.9
Atlantic Richfield Co.	18.868.000	17.579.000	7.3	1.583.000	1.224.000	29.3	8.4	7.0
BP America	15.411.000	16.396.000	(6.0)	1.673.000	2.104.000	(20.5)	10.9	12.8
Chevron Corp.	27.722.000	28.106.000	(1.4)	1.768.000	1.250.000	41.4	6.4	4.4
Citgo Petroleum Corp.	4.109.700	3.952.000	4.3	165.600	85.700	99.1	4.0	2.2
Coastal Corp.	8.186.500	7.428.900	10.2	157.400	113.100	39.2	1.9	1.5
Conoco, Inc.	11.552.000	11.097.000	4.1	391.000	277.000	41.2	3.4	2.5
Diamond Shamrock Corp.	1.803.900	1.740.800	3.6	53.500	1.600	3.244.0	3.0	0.1
Exxon Corp.	88.600.000	83.300.000	6.4	5.300.000	4.800.000	10.4	5.9	5.8
Getty Petroleum Corp.*	1.040.755	1.335.754	(22.1)	28.418	15.015	86.8	2.7	1.1
Marathon Oil Corp.	9.000.000	9.100.000	(1.1)	506.000	442.000	14.5	5.6	4.9
Mobil Oil Corp.	54.361.000	51.387.000	5.8	2.087.000	1.348.000	54.8	3.8	2.6
Murphy Oil Corp.	1.525.000	1.518.[illegible]0	0.5	38.752	(43.638)	—	2.5	—
Phillips Petroleum Corp.	11.304.000	10.721.000	5.4	650.000	35.000	1.757.0	5.8	0.3
Shell Oil Corp.	21.399.000	21.199.000	0.9	1.239.000	1.230.000	0.7	5.8	5.8
Sun Co., Inc.	9.744.000	9.482.000	2.8	7.000	348.000	(9.798)	0.1	3.7
Texaco Inc.	35.138.000	35.344.000	(0.5)	1.304.000	(4.135.000)	—	3.7	—
Unocal Corp.	8.853.000	8.466.000	4.6	480.000	181.000	165.7	5.4	2.1

*Fiscal year is Jan. 31, 1988-Jan. 31, 1989

Operating

	Net Crude Production b/d				Refinery Crude Runs b/d				Domestic Refined Product Sales b/d	
	Domestic		Foreign		Domestic		Foreign			
	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Amerada Hess Corp.	67.965	68.548	76.388	67.696	296.000	371.000	—	—	379.000	411.000
American Petrofina	177.000	162.000	—	—	167.000	164.000	—	—	—	—
Amoco Corp.	409.000	394.000	400.000	408.000	882.000	842.000	62.000	53.000	953.000	918.000
Ashland Oil, Inc.	—	—	—	—	320.669	319.089	—	—	355.683	347.633
Atlantic Richfield Co.	674.200	665.000	63.600	63.200	397.800	377.600	—	—	418.800	406.200
BP America	857.600	851.300	3.200	2.300	629.000	622.500	—	—	811.700	844.000
Chevron Corp.	484.000	507.000	486.000	482.000	1,407.000	1.388.000	500.000	490.000	1.631.000	1,591.000
Citgo Petroleum Corp.	—	—	—	—	68.100	61.400	197.000	179.400	493.000	448.000
Coastal Corp.	10.200	11.000	—	—	266.000	230.000	—	—	742.000	647.200
Conoco, Inc.	98.794	101.007	295.346	295.178	381.084	373.870	219.441	198.510	502.343	479.250
Diamond Shamrock Corp.	—	—	—	—	156.292	141.593			175.523	165.747
Exxon Corp.	760.000	756.000	1.046.000	990.000	968.000	1,026.000	2.074.000	1.955.000	1.113.000	1,057.000
Getty Petroleum Corp.*	—	—	—	—	—	—	—	—	—	—
Marathon Oil Corp.	137.000	142.000	69.000	63.000	469.800	452.500	—	50.000	559.000	527.000
Mobil Oil Corp.	329.000	338.000	361.000	336.000	650.000	645.000	996.000	918.000	927.000	865.000
Murphy Oil Corp.	15.554	15.904	32.150	33.182	92.704	88.155	23.711	21.139	98.885	96.546
Phillips Petroleum Corp.	284.000	287.000	124.000	113.000	501.000	497.000	—	—	540.000	513.000
Shell Oil Corp.	463.000	488.000	68.000	54.000	999.000	1.019.000	—	—	1.314.000	1.352.000
Sun Co., Inc.	104.300	130.500	51.900	50.300	531.900	488.400	—	—	774.600	778.100
Texaco Inc.	524.000	540.000	466.000	516.000	907.000	836.000	970.000	1.156.000	1.175.000	1.159.000
Unocal Corp.	166.000	164.000	91.000	93.000	408.000	417.000	—	—	520.000	479.000

Quarterly and Full-Year Earnings—1988 vs. 1987

(Add 000,000)

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Full Year 1988	Full Year 1987	% Change
Exxon	$1,455.0	$1,200.0	$1,225.0	$1,380.0	$5,260.0	$4,840.0	8.7%
Mobil	505.0	487.0	557.0	469.0	2,018.0	1,348.0	49.7
Chevron	653.0	520.0	420.0	175.0	1,768.0	1,250.0	41.4
Amoco	469.0	667.0	552.0	375.0	2,063.0	1,360.0	51.7
Shell	1,245.0	263.0	352.0	212.0	2,072.0	1,230.0	68.5
Texaco	242.0	527.0	239.0	296.0	1,304.0	(4,135.0)	—
BP-America	630.0	679.0	590.0	420.0	2,319.0	2,424.0	(4.3)
Tenneco (a)	63.0	154.0	7.0	598.0	822.0	(218.0)	—
Arco	401.0	400.0	391.0	391.0	1,583.0	1,224.0	29.3
Phillips	130.0	170.0	215.9	135.0	650.9	35.0	1,759.7
Conoco (b)	171.0	62.0	71.0	153.0	457.0	277.0	65.0
Unocal	174.8	64.0	97.0	141.0	476.8	181.0	163.4
Marathon (c)	84.0	120.0	183.0	123.0	510.0	442.0	15.4
Sun	60.0	(201.0)	72.0	76.0	7.0	348.0	(98.0)
Coastal (d)	46.5	30.6	9.2	71.1	157.4	113.1	39.2
Amerada Hess	65.6	(23.5)	15.8	66.3	124.2	229.9	(46.0)
Pennzoil	20.7	1,388.7	39.3	36.1	1,484.8	45.5	3,163.3
Ashland (e)	71.7	20.6	56.9	66.2	215.4	133.4	61.5
Kerr-McGee	10.3	35.8	30.5	33.4	110.0	81.0	35.8
American Petrofina	30.4	39.4	35.2	32.9	137.9	83.3	65.5
Murphy	(6.4)	9.4	10.1	25.7	38.8	(43.6)	—
Citgo	41.9	33.9	29.9	60.0	165.7	85.7	93.3

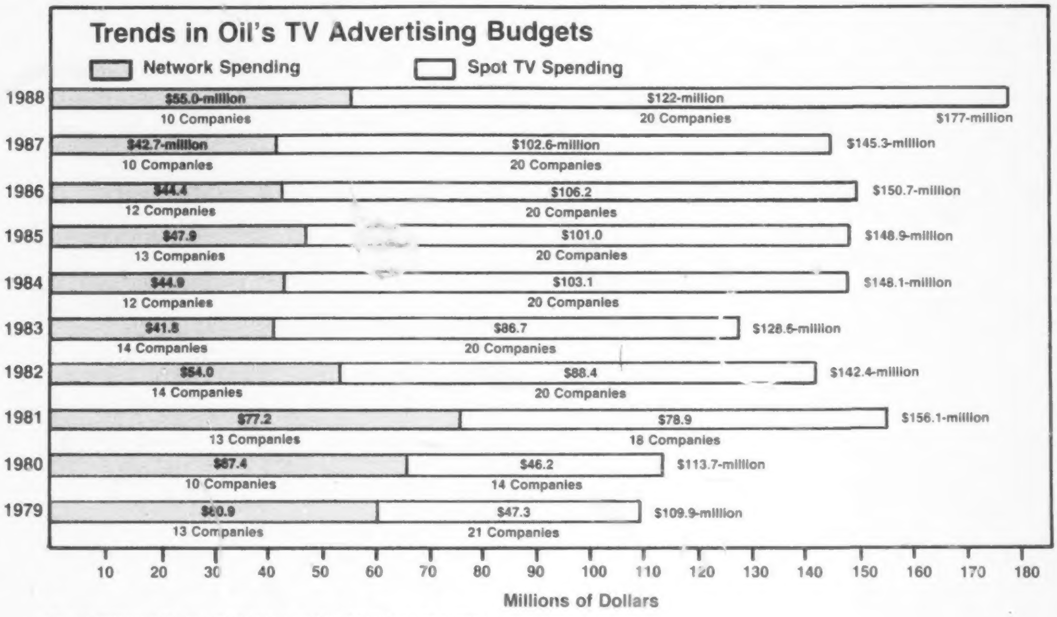
(a) Includes Tenneco Oil; note also, Tenneco Inc. was proceeding with the liquidation of its Tenneco Oil Co. Div. in the third quarter and consummated the liquidation in the fourth quarter and abandoned petroleum marketing;
(b) Includes operating income (versus net);
(c) Operating income;
(d) Includes oil company operations;
(e) Figures reflect Ashland's fiscal year (concluding Sept. 30) totals.

Downstream Earnings in 1988: Striking Recovery from 1987

(Add 000,000)

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Full Year 1988	Full Year 1987	% Change
Exxon	$431.0	$281.0	$537.0	$555.0	$1,804.0	$509.0	254.4%
domestic	94.0	100.0	220.0	255.0	669.0	32.0	1,990.6
foreign	337.0	181.0	317.0	300.0	1,135.0	477.0	137.9
Mobil	217.0	260.0	219.0	395.0	1,091.0	232.0	370.3
domestic	101.0	89.0	143.0	221.0	554.0	123.0	350.4
foreign	116.0	171.0	76.0	74.0	437.0	109.0	300.9
Chevron	199.0	123.0	243.0	57.0	622.0	191.0	225.7
domestic	134.0	91.0	186.0	160.0	571.0	117.0	388.0
foreign	65.0	32.0	57.0	(103.0)	51.0	74.0	(31.1)
Texaco	153.0	215.0	325.0	410.0	1,103.0	130.0	748.5
domestic	92.0	108.0	202.0	245.0	647.0	(36.0)	—
foreign	61.0	107.0	123.0	165.0	456.0	166.0	174.7
Amoco (worldwide)	169.0	206.0	319.0	266.0	960.0	216.0	344.4
Shell	130.0	103.0	152.0	124.0	509.0	224.0	127.2
BP-America	NA	312.0	NA	NA	NA	NA	—
Arco	87.0	72.0	121.0	88.0	368.0	150.0	145.3
Phillips (a)	74.0	98.0	130.0	169.0	471.0	201.0	134.3
Conoco	77.0	75.0	99.0	112.0	363.0	177.0	105.1
Sun	40.0	79.0	87.0	73.0	279.0	46.0	506.5

(a) Pre-tax operating income.



Source: Television Bureau of Advertising and NPN Factbook 1980-1988

Network TV Spending

Company	(Add 000) 1988	(Add 000) 1987	% Chng.	Company	(Add 000) 1988	(Add 000) 1987	% Chng.
Texaco	$15.561	$ 4.366	256	Mobil	$3.720	$2.987	25
Quaker State	9.429	12.324	(23)	Unocal	1.568	1.673	(6)
Pennzoil	9.364	11.288	(17)	Phillips	1.397	1.631	(14)
Burmah (Castrol)	7.095	8.172	(13)	Chevron	138	459	(70)
Ashland	6.796	8.589	(21)	Exxon	65	—	—
				Totals	**55.133**		

Spot TV Spending

Exxon	$18.585	$20.570	(10)	Ashland	$4.636	$5.349	(13)
Chevron (Gulf)	17.186	16.966	1	Conoco	2.962	3.094	(4)
Amoco	12.489	14.416	(13)	Pennzoil	2.525	597	323
Texaco	11.471	8.549	34	Citgo	2.378	398	497
Mobil	10.718	8.534	26	BP (Sohio)	1.870	999	87
Unocal	8.830	6.462	37	Am. Petrofina	1.462	2.214	(34)
Shell	5.922	12.956	(54)	Atl. Richfield	1.182	3.069	(61)
Burmah (Castrol)	5.897	4.857	21	Amer. Hess	1.176	1.284	(8)
Sun	5.713	4.522	26	Marathon	1.050	692	52
Phillips	5.051	6.402	(21)	Quaker State	852	1.064	(20)

Source: Television Bureau of Advertising from Broadcast Advertisers Reports

Companies Chalk Up Record TV Budgets

Even discounting inflationary factors, the money invested by 30 oil companies in 1988 in network and spot television advertising is impressive. According to the Television Bureau of Advertising, the companies spent a record $177-million last year to promote their products and services on television. This represents an increase of 22% over the previous year's expenditures of $150.7-million and 14% over the industry's previous high-water mark in TV outlays—$156.1-million in 1981.

In all likelihood, tens of millions more were spent in purely local advertising and promotional programs like those of oil heat firms, but there is no easy way to keep track of those totals.

The bulk of the expenditures, almost 70%, tracked by the Television Bureau of Advertising went into TV's "spot market" while the balance went to the networks. TBA defines the spot market as primarily regional commercials and show sponsorship, and network advertising as that placed on the three big syndicates—ABC, CBS and NBC.

Television generally gets about three out of every four dollars spent by the oil companies. This includes radio, network and spot, and print media such as newspapers, magazines and circulars.

As the graph at top indicates, spot television has been getting the lion's share of the annual budgets, reflecting a basic switch by the companies to more target-market advertising and promotions.

Current Automotive Registrations

	Automobiles			Trucks and Buses			All Motor Vehicles			Motorcycles
State	Registered 1987	Estimated 1988	% Chng.	Registered 1987	Estimated 1988	% Chng.	Registered 1987	Estimated 1988	% Chng.	Estimated 1988
Alabama	2,633,403	2,758,000	4.7	913,180	894,000	-2.1	3,546,583	3,652,000	3.0	50,000
Alaska	225,141	225,000	-0.	132,260	129,000	-2.5	357,401	354,000	-1.0	9,000
Arizona	1,712,441	1,783,000	4.1	704,616	715,000	1.5	2,417,057	2,498,000	3.3	57,000
Arkansas	935,599	961,000	2.7	509,392	520,000	2.1	1,444,991	1,481,000	2.5	17,000
California	15,714,903	16,473,000	4.8	4,579,081	4,808,000	5.0	20,293,984	21,281,000	4.9	661,000
Colorado	2,220,941	2,227,000	0.3	812,413	853,000	5.0	3,033,354	3,080,000	1.5	117,000
Connecticut	2,448,501	2,498,000	2.0	163,548	166,000	1.5	2,612,049	2,664,000	2.0	62,000
Delaware	383,174	385,000	0.5	107,320	112,000	4.4	490,494	497,000	1.3	9,000
Dist. of Col.	250,882	252,000	0.5	17,029	16,000	-6.0	267,851	268,000	0.1	2,000
Florida	8,521,630	8,822,000	3.5	2,161,960	2,224,000	2.9	10,683,590	11,046,000	3.4	213,000
Georgia	3,597,364	3,708,000	3.1	1,428,856	1,522,000	6.5	5,026,220	5,230,000	4.1	80,000
Hawaii	603,809	614,000	1.7	85,936	84,000	-2.3	689,745	698,000	1.2	24,000
Idaho	579,462	626,000	8.0	367,792	393,000	6.9	947,254	1,019,000	7.6	44,000
Illinois	6,242,279	6,428,000	3.0	1,420,043	1,448,000	2.0	7,662,322	7,876,000	2.8	248,000
Indiana	2,748,356	2,774,000	0.9	959,495	962,000	0.3	3,707,851	3,736,000	0.8	95,000
Iowa	1,936,924	1,987,000	2.6	762,503	779,000	2.2	2,699,427	2,766,000	2.5	208,000
Kansas	1,501,752	1,512,000	0.7	686,287	694,000	1.1	2,188,039	2,206,000	0.8	80,000
Kentucky	1,811,098	1,832,000	1.2	909,099	930,000	2.3	2,720,197	2,762,000	1.5	36,000
Lousiana	1,953,327	1,984,000	1.6	937,907	943,000	0.5	2,891,234	2,927,000	1.2	39,000
Maine	694,596	698,000	0.5	233,219	226,000	-3.1	927,815	924,000	-0.4	41,000
Maryland	2,718,947	2,769,000	1.8	589,674	600,000	1.8	2,208,621	3,369,000	1.6	51,000
Massachusetts	3,392,975	3,433,000	1.2	493,877	498,000	0.8	3,886,852	3,369,000	1.1	110,000
Michigan	5,481,096	5,556,000	1.4	1,463,570	1,524,000	4.1	6,944,666	7,080,000	1.9	224,000
Minnesota	2,466,150	2,546,000	3.2	705,631	717,000	1.6	3,171,781	3,263,000	2.9	150,000
Mississippi	1,344,842	1,341,000	-0.3	416,024	413,000	-0.7	1,760,866	1,754,000	-0.4	24,000
Missouri	2,667,130	2,665,000	-0.1	1,045,298	1,088,000	4.1	3,712,428	3,753,000	1.1	66,000
Montana	415,728	413,000	-0.7	234,034	231,000	-1.3	649,762	644,000	-0.9	22,000
Nebraska	866,933	887,000	2.3	438,013	445,000	1.6	1,304,946	1,332,000	2.1	30,000
Nevada	588,613	624,000	6.0	223,357	233,000	4.3	811,970	857,000	5.5	17,000
New Hampshire	687,873	724,000	5.3	186,138	190,000	2.1	874,011	914,000	4.6	33,000
New Jersey	4,957,598	5,048,000	1.8	562,159	593,000	5.5	5,519,757	5,641,000	2.2	58,000
New Mexico	802,823	799,000	-0.5	481,883	477,000	-1.0	1,284,706	1,276,000	-0.7	37,000
New York	8,361,175	8,764,000	4.8	1,231,557	1,270,000	3.1	9,592,732	10,034,000	4.6	226,000
North Carolina	3,491,660	3,542,000	1.4	1,378,564	1,474,000	6.9	4,870,224	5,016,000	3.0	62,000
North Dakota	383,246	387,000	1.0	267,212	267,000	-0.1	650,458	654,000	0.5	24,000
Ohio	7,001,690	7,177,000	2.5	1,519,707	1,601,000	5.3	8,521,397	8,778,000	3.0	288,000
Oklahoma	1,931,117	1,991,000	3.1	956,361	946,000	-1.1	2,887,478	2,937,000	1.7	71,000
Oregon	1,657,107	1,689,000	1.9	585,549	571,000	-2.5	2,242,656	2,260,000	0.8	78,000
Pennsylvania	6,180,970	6,331,000	2.4	1,461,236	1,538,000	5.3	7,642,206	7,869,000	3.0	194,000
Rhode Island	543,768	554,000	1.9	110,056	118,000	7.2	653,824	672,000	2.8	25,000
South Carolina	1,782,844	1,793,000	0.6	583,300	610,000	4.6	2,366,144	2,403,000	1.6	31,000
South Dakota	409,571	418,000	2.1	264,225	271,000	2.6	673,796	689,000	2.3	31,000
Tennessee	3,194,605	3,304,000	3.4	831,960	831,000	-0.1	4,026,565	4,135,000	2.7	77,000
Texas	8,398,231	8,330,000	-0.8	3,900,131	3,879,000	-0.5	12,298,362	12,209,000	-0.7	215,000
Utah	753,776	760,000	0.8	360,179	359,000	-0.3	1,113,955	1,119,000	0.5	45,000
Vermont	329,946	345,000	4.6	112,531	121,000	7.5	442,477	466,000	5.3	19,000
Virginia	3,614,251	3,623,000	0.2	1,013,736	1,106,000	9.1	4,627,987	4,729,000	2.2	67,000
Washington	2,702,000	2,801,000	3.7	1,126,067	1,122,000	0.4	3,828,067	3,923,000	2.5	138,000
West Virginia	821,035	831,000	1.2	372,958	385,000	3.2	1,193,993	1,216,000	1.8	24,000
Wisconsin	2,378,474	2,373,000	-0.2	717,745	714,000	-0.5	3,096,219	3,087,000	-0.3	189,000
Wyoming	281,936	290,000	2.9	196,149	203,000	3.5	478,085	493,000	3.1	21,000
Total	137,323,632	140,655,000	2.4	41,720,817	42,813,000	2.6	179,044,449	183,468,000	2.5	4,719,000

Source: Federal Highway Administration, Table SS87-3, published October, 1988.

Estimated Licensed Drivers, by Sex and States, 1987 and 1988

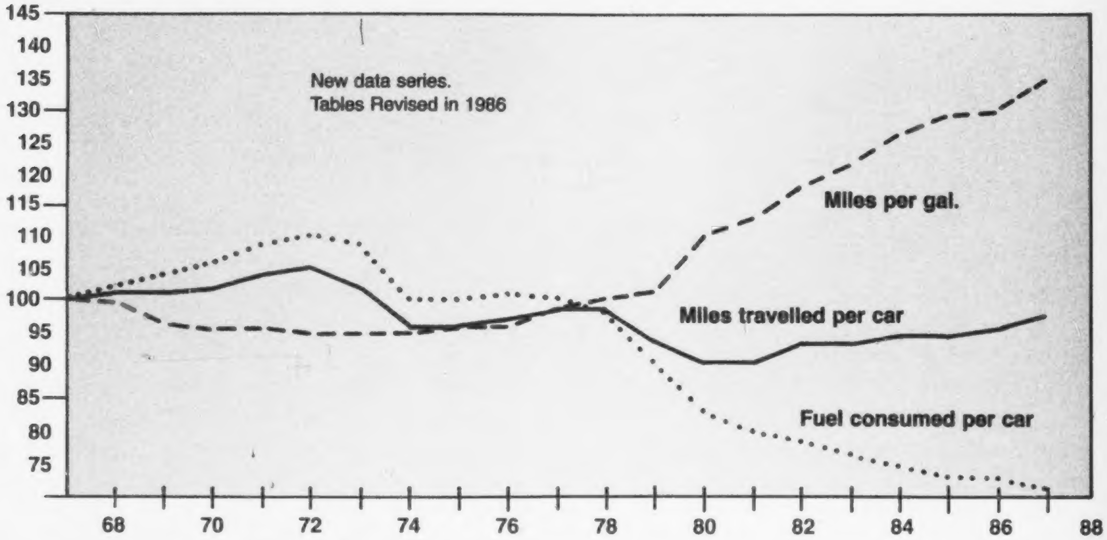
(Add 000)

	1987 (Actual)				1988 (Estimated)			% Change Total Drivers	
State	Male	Female	Total	% Male Drivers	Male	Female	Total	1988 vs 1987	1987 vs 1977
Alabama	1,441,719	1,331,917	2,773,636	51.98	1,484	1,371	2,855	2.9	30.7
Alaska	165,604	134,396	300,000	55.20	164	133	297	-1.0	32.9
Arizona	1,170,439	1,102,424	2,272,863	51.50	1,184	1,116	2,300	1.2	60.1
Arkansas	868,040	789,755	1,657,795	52.36	874	795	1,669	0.7	18.2
Califonia	9,812,576	8,750,350	18,562,926	52.86	10,097	9,004	19,101	2.9	27.3
Colorado	1,234,651	1,075,698	2,310,349	53.44	1,244	1,083	2,327	0.7	23.0
Connecticut	1,200,496	1,146,172	2,346,668	51.16	1,208	1,154	2,362	0.7	22.7
Delaware	233,149	229,365	462,514	50.41	236	233	469	1.4	20.5
Dist. of Col.	211,646	177,189	388,835	54.43	213	178	391	0.6	11.2
Florida	4,576,493	4,016,569	8,593,062	53.26	4,689	4,116	8,805	2.5	30.7
Georgia	2,145,310	2,069,973	4,215,283	50.89	2,210	2,133	4,343	3.0	33.2
Hawaii	341,638	286,389	628,027	54.40	349	293	642	2.2	17.6
Idaho	357,588	333,305	690,893	51.76	361	337	698	1.0	16.1
Illinois	3,672,491	3,513,579	7,186,070	51.11	3,720	3,559	7,279	1.3	6.6
Indiana	1,853,370	1,736,803	3,590,173	51.62	1,852	1,735	3,587	-0.1	3.3
Iowa	895,385	947.153	1,842,538	48.60	879	930	1,809	-1.8	-7.2
Kansas	835,562	842,856	1,678,418	49.78	840	847	1,687	0.5	-5.1
Kentucky	1,213,368	1,124,637	2,338,005	51.90	1,236	1,146	2,382	1.9	17.3
Louisiana	1,338,633	1,275,792	2,614,425	51.20	1,323	1,260	2,583	-1.2	17.6
Maine	433,713	437,003	870,716	49.81	445	448	893	2.6	30.4
Maryland	1,539,843	1,469,633	3,009,476	51.17	1,562	1,491	3,053	1.4	19.0
Massachusetts	2,044,446	1,899,760	3,944,206	51.83	2,068	1,922	3,990	1.2	8.0
Michigan	3,215,324	3,163,399	6,378,723	50.41	3,237	3,185	6,422	0.7	3.7
Minnesota	1,276,463	1,194,717	2,471,180	51.65	1,287	1,204	2,491	0.8	-4.9
Mississippi	906,651	869,213	1,775,864	51.05	922	883	1,805	1.6	12.9
Missouri	1,769,497	1,701,961	3,471,458	50.97	1,787	1,718	3,505	1.0	12.0
Montana	331,142	272,909	604,051	54.82	336	277	613	1.5	17.1
Nebraska	541,147	528,001	1,069,148	50.61	540	526	1,066	-0.3	4.3
Nevada	373,612	345,446	719,058	51.96	380	351	731	1.7	50.2
New Hampshire	402,874	382,717	785,591	51.28	414	393	807	2.7	34.5
New Jersey	3,172,257	2,849,823	6,022,080	52.68	3,235	2,906	6,141	2.0	40.2
New Mexico	539,571	498,063	1,037,634	52.00	547	504	1,051	1.3	34.0
New York	5,431,785	4,597,252	10,029,037	54.16	5,498	4,653	10,151	1.2	11.8
North Carolina	2,192,005	2,126,718	4,318,723	50.76	2,234	2,168	4,402	1.9	23.7
North Dakota	222,203	211,843	434,046	51.19	221	211	432	-0.5	9.9
Ohio	3,787,958	3,614,458	7,402,416	51.17	3,803	3,629	7,432	0.4	13.0
Oklahoma	1,087,977	1,075,171	2,163,148	50.30	1,103	1,091	2,194	1.4	15.4
Oregon	1,067,849	959,705	2,027,554	52.67	1,088	978	2,066	1.9	15.6
Pennsylvania	4,022,458	3,661,678	7,684,136	52.35	4,072	3,707	7,779	1.2	9.4
Rhode Island	327,597	320,290	647,887	50.56	332	325	657	1.4	7.9
South Carolina	1,109,055	1,086,293	2,195,348	50.52	1,128	1,105	2,233	1.7	26.1
South Dakota	247,322	238,045	485,367	50.96	248	238	486	0.1	3.2
Tennessee	1,599,786	1,557,040	3,156,826	50.68	1,627	1,583	3,210	1.7	21.6
Texas	5,812,302	5,341,170	11,153,472	52.11	5,869	5,393	11,262	1.0	36.1
Utah	507,231	498,711	1,005,942	50.42	517	509	1,026	2.0	30.5
Vermont	208,169	193,919	402,088	51.77	213	198	411	2.2	21.2
Virginia	2,058,488	1,994,815	4,053,303	50.79	2,108	2,043	4,151	2.4	23.7
Washington	1,642,433	1,514,310	3,156,743	52.03	1,683	1,552	3,235	2.5	34.9
West Virginia	693,678	609,726	1,303,404	53.22	697	612	1,309	0.4	-4.7
Wisconsin	1,675,668	1,572,538	3,248,206	51.59	1,686	1,582	3,286	0.6	14.4
Wyoming	179,957	159,193	339,150	53.06	180	159	339	0.0	9.7
Total	83,988,619	77,829,842	161,818,461	51.90	85,230	78,967	164,197	1.5	17.2
Percent Change From Prior Year	1.4	1.5	1.5	—	—	—	—	—	—

Source: Federal Highway Administration, Table SS87-5, published October 1988

Passenger Car Efficiency Index

(Index: 1967 = 100)



Source: Energy Information Administration, Monthly Energy Review, 1988

Passenger Car Energy Indicators—1967-1987

(1967 = 100)

	Passenger Cars Only						Passenger Cars and Motorcylces		
	Avg. Fuel Used per Car		Avg. Miles Traveled per Car		Avg. Miles per gal. of Fuel				
Year	Gal.	Index	Miles	Index	Miles	Index	Number Registered (000)	Gasoline Consumed (000,000 gal.)	Miles Traveled (000,000)
1987	515	72.0	9,883	98.2	19.17	136.2	142,209	70,984	1,367,000
1986	526	73.6	9,608	95.5	18.27	129.9	140,693	71,403	1,310,921
1985	525	73.4	9,560	95.0	18.20	129.4	137,308	69,450	1,269,651
1984	536	75.0	9,558	95.0	17.83	126.7	134,334	73,283	1,274,074
1983	553	77.3	9,475	94.2	17.14	121.8	131,723	73,156	1,229,697
1982	566	79.2	9,428	93.7	16.65	118.3	129,500	72,848	1,191,623
1981	576	80.6	9,186	91.3	15.94	113.3	129,123	71,718	1,124,843
1980	591	82.7	9,141	90.9	15.46	109.9	127,448	73,375	1,129,887
1979	653	91.3	9,403	93.5	14.41	102.4	125,750	80,233	1,162,528
1978	701	98.0	9,835	97.8	14.04	99.8	121,717	83,775	1,194,287
1977	716	100.1	9,879	98.2	13.80	98.1	118,711	80,677	1,141,166
1976	723	101.1	9,785	97.3	13.53	96.2	115,170	78,847	1,098,147
1975	716	100.1	9,690	96.3	13.52	96.1	111,679	76,457	1,050,472
1970	760	106.3	10,272	102.1	13.52	96.1	92,095	65,784	900,992
1967	715	100.0	10,060	100.0	14.07	100.0	82,367	55,110	774,203

(a) Data for this table were revised by The Federal Highway Administration in 1986 and this automatically replaces all prior data.

Mileage and Fuel Consumption Data—1987

	Personal Vehicles						
	Passenger Cars	Motor-cycles	All Personal Passenger Vehicles	Buses	All Passenger Vehicles	Trucks and Combinations	All Motor Vehicles
Fuel consumed (million gal.)	70,787	197	70,984	904	71,888	55,859	127,748
Average per vehicle (gal.)	515	40	499	1,502	503	1,359	695
Average miles per gal.	19.17	50	19.26	5.89	19.09	9.88	15.06
Vehicles registered (thousands)	137,323	4,886	142,209	602,055	142,811	41,119	183,930
Average miles traveled	9,883	2,017	9,613	8,846	9,610	13,423	10,462
Average miles traveled (millions):							
Main rural roads	—	—	307,345	1,365	308,170	165,130	473,840
Local rural roads	—	—	194,543	1,657	196,200	111,707	307,907
Urban streets	—	—	865,158	2,304	867,462	275,118	1,142,092
Total travel in 1987	**1,357,191**	**9,855**	**1,367,047**	**5,326**	**1,372,372**	**551,955**	**1,924,327**
Total travel in 1986	**1,301,214**	**9,397**	**1,310,611**	**5,073**	**1,315,684**	**519,188**	**1,834,872**

Source: Federal Highway Administration, Table VM-1, published October 1987; all 1986 data are preliminary.

1987 Relationships by Population and Drivers

State	Resident Population (1,000)	Licensed Drivers per 1,000 Resident Population	Registered Motor Vehicles per 1,000 Resident Population	Gal. of Fuel per Vehicle	Miles per Gallon	Annual Miles per Vehicle	Vehicle Miles per Licensed Driver
Alabama	4,083	679	869	683	15.46	10,553	13,403
Alaska	525	571	681	617	17.69	10,912	13,000
Arizona	3,386	671	714	787	16.67	13,127	13,960
Arkansas	2,388	694	805	1,028	12.32	12,699	11,042
California	27,663	671	734	685	16.29	11,151	12,191
Colorado	3,296	701	920	559	15.91	8,890	11,673
Connecticut	3,211	731	813	599	17.11	10,251	11,410
Delaware	644	718	762	782	15.86	12,408	13,159
D.C.	622	625	431	740	16.99	12,574	8,662
Florida	12,023	715	889	598	14.66	8,765	10,897
Georgia	6,222	677	808	816	14.70	11,998	14,303
Hawaii	1,083	580	637	524	19.98	10,465	11,493
Idaho	998	692	949	562	15.26	8,571	11,751
Illinois	11,582	620	662	697	14.18	9,887	10,542
Indiana	5,531	649	670	871	13.66	11,900	12,290
Iowa	2,834	650	953	587	13.14	7,708	11,293
Kansas	2,476	678	[illegible]	687	13.69	9,397	12,250
Kentucky	3,727	627	730	782	14.26	11,146	12,988
Louisiana	4,461	586	648	797	13.28	10,583	11,704
Maine	1,167	734	782	776	14.94	11,604	12,365
Maryland	4,535	664	730	700	15.77	11,030	12,126
Massachusetts	5,855	674	664	690	15.78	10,884	10,726
Michigan	9,200	693	755	664	16.41	10,901	11,869
Minnesota	4,246	582	747	691	16.04	11,087	14,231
Mississippi	2,625	677	871	852	13.45	11,456	11,380
Missouri	5,103	680	727	845	13.82	11,685	12,496
Montana	809	747	803	794	15.65	12,426	13,368
Nebraska	1,594	671	819	694	14.46	10,032	12,244
Nevada	1,007	714	806	817	12.65	10,340	11,678
New Hampshire	1,057	743	827	632	16.61	10,488	11,669
New Jersey	7,672	785	719	714	14.48	10,339	9,477
New Mexico	1,500	692	856	760	15.49	11,766	14,568
New York	17,825	563	538	686	14.89	10,216	9,772
North Carolina	6,413	673	759	771	14.54	11,211	12,643
North Dakota	672	646	968	644	13.56	8,734	13,088
Ohio	10,784	686	790	660	14.07	9,289	10,693
Oklahoma	3,272	661	882	682	16.05	10,946	14,611
Oregon	2,724	744	823	685	15.20	10,404	11,507
Pennsylvania	11,936	644	640	698	14.74	10,288	10,232
Rhode Island	986	657	663	664	13.83	9,181	9,266
South Carolina	3,425	641	691	792	16.12	12,774	13,767
South Dakota	709	685	950	657	14.02	9,215	12,792
Tennessee	4,855	650	829	794	13.18	10,462	13,344
Texas	16,789	664	733	798	15.40	12,293	13,565
Utah	1,680	599	663	787	14.45	11,382	12,604
Vermont	548	734	807	709	16.07	11,388	12,532
Virginia	5,904	687	784	745	15.91	11,848	13,528
Washington	4,538	696	844	636	15.82	10,063	12,202
West Virginia	1,897	687	629	794	14.50	11,509	10,543
Wisconsin	4,807	676	644	752	17.27	12,982	12,375
Wyoming	490	692	976	985	11.39	11,226	15,825
Total	243,400	652	736	714	15.06	10,748	12,122

Source: Federal Highway Administration, Table SS87-18, published October 1988.

Gasoline	Motor Oil
Ada Resources	
Phillips (r,ur,up)	Phillips Trop Artic
Conoco (r,ur,up)	Phillips Super HD
	Conoco High Perfomance Heavy Duty
	Conoco Fleet
	Unocal Guardol
	Unocal Super
Agway Petroleum Corp.	
Agway (r,ur,up,usp)	Agway
Power Champ (r,ur,up)	
American Petrofina, Inc.	
Fina (r,ur,usp)	Fina SA Non-Detergent
	Fina Ultra Supreme
	Fina Turbo Universal
	Fina Universal
	Fina KAPPA SHD Universal
Amoco Corp.	
Amoco (r,ur,up,usp)	Amoco-Amolube
Amoco w/Ethanol (ur)	Amoco 200
	Amoco 300
	Amoco 400
	Amoco Turbo
	Amoco LDO
	Amoco Ultimate
Anchor Gasoline Corp.	
Canal (r,ur,up)	Sun
Bayou (r,ur,up)	
Arco Products Company	
Arco (r,ur,usp)	Arco
	Arco Fleet 53 Plus
	Arco Supreme
	Arco Graphite III
Arkansas Valley Petroleum	
Phillips (r,p,sp)	
Sunoco (r,p,sp)	
Ashland Oil, Inc.	
	Valvoline
Atlantic Refining and Marketing Corp.	
Atlantic (r,ur,up,usp)	Atlantic-Special
	Atlantic-Premium
	Atlantic-Super Premium
Atlantic Richfield Co.	
Arco (r,ur,up)	ARCO
	ARCO XHD
	ARCO S3 Plus
	ARCOsupreme
	ARCO Graphite
Bagwell Oil Co., Inc.	
Unocal 76	Unocol 76
Chevron	Chevron
BP	BP
Beacon Oil Co.	
Beacon (r,ur)	Beacon
Ultramo (r,ur)	Sequoia
Bedford Valley Petroleum Corp.	
Amoco (ur,up)	Amoco
Chevron (ur,up)	Chevron
Texaco (ur,up)	Quaker State
	Kendall
	Pennzoil
Beneto, Inc.	
Exxon	
Bostick Brothers, Inc.	
Citgo (r,ur)	Conoco
BP America Inc.	
Sohio/Boron (ur,up,usp)	BP All Season
Gulf (r,ur,up)	BP Premex
	BP Nitrex Super Premium
	Nitrex Sea & Land
Bradley Petroleum Inc.	
	Sinclair

Gasoline	Motor Oil
Bray Terminals, Inc.	
Citgo (r,ur,p,up,sp,usp,o)	Chevron
	Citgo
	Castrol
Brennan Petroleum Co.	
Mobil (r,ur,up)	Mobil
Browning Oil Co.	
Shell (r,ur,p,up)	Shell
Rally (r,ur,up)	
Dennis K. Burke Inc.	
Citgo (r,ur,up,usp)	Fleetline
	Citgo
	Texaco
	Shell
	Castrol
	Chevron
C.S.C. Oil Co.	
CSC (r, ur, up)	
Campbell Oil Co.	
Shell (r, ur, p)	Shell
Unocal	Unocal
Sunoco	Sunoco
Cannon Oil Corp.	
Cannon (ur,up,usp, d)	Cannon
CENEX	
Cenex (r,ur,up,usp)	Golden D
	Super Lube 518
	Super Lube XL
	CENEX LIT Tech.
	CENEX TC-501
Center Independent Oil Co.	
Citgo	Citgo
	Castrol
	Vavoline
	Quaker State
	Pennzoil
	Wolf's Head
Certified Oil Co.	
	Certified
	Quaker State
	Valvoline
	Shell
Champlain Oil Co.	
Citgo	Citgo
Texaco	Texaco
Gulf	Quaker State
BP	Castrol
Chapman Inc.	
Texaco (r,ur,p,up,sp,usp)	Texaco
Charter Marketing Co.	
Charter (r,ur,up)	
Chevron Corp.	
Chevron (r,ur,up,usp)	Chevron Special
	Chevron DELO 100
	Chevron Custom
	Chevron ATF Special
	Chevron RPM DELO
	Chevron Dexron II (ATF)
	Chevron DELO 400
	Standard ATF Special
Circle K Corp.	
CITGO Petroleum Corp.	
Citgo Reg. (r, ur)	Citgo Non-detergent
Premium (r, ur)	Citgo C-300 HD Detergent
Citgo Advantage Mid-grade (o)	Citgo All Season
	Citgard 500 Motor Oils
	Citgard 600
Clark Oil & Refining Corp.	
Regular Leaded	Clark H.D.
Regular Unleaded	Clark Premium 5W-30
Super Unleaded	Clark Premium 10W-40
	Clark Premium 10W-30

Gasoline	Motor Oil
The Coastal Corporation	
Coastal (r,ur,p,up,sp,usp,o)	Uni-Lube
	GRC
Coen Oil Co.	
Amoco	Amoco
Union	Union
Mobil	Mobil
Citgo	Citgo
Pennzoil	Pennzoil
	Quaker State
	Valvoline
Colonial Oil Industries, Inc.	
Golden Premium	Enmark
No Lead	
Sterling	
Premium Plus	
Como Oil Co.	
Phillips 66 (r,ur,p,up)	
Conoco Inc.	
Conoco (r,ur,up,usp)	Tracon
	Fleet
	Super
	HP Naling
	HP Turbo
	HP Xtreem
Consumers Oil	
	Consumers
	Scot
Convenient Petroleum Corp.	
Citgo (r,ur)	Citgo
Texaco (r,ur)	Texaco
Sunoco (r,ur)	Sunoco
Crockatt Oil Co.	
Conoco	Conoco
	Shell
	Texaco(Havoline)
	Phillips
	Penzoil Sun
	Mobil
Crown Central Petroleum Corp.	
Crown (r,ur,up,usp,d)	Crown All-Season HD
	Peoples All-Season HD
	Crown Premium HD
	Crown Quality
	Crown Universal ATF
Crystal Flash Petroleum	
Crystal Flash (ur,up,usp,o,d)	Citgo
	Kendall
Curtis Parker Oil Co., Inc.	
Conoco (ur,usp)	Fleet
	Super
	Tracon
	High Performance
	Par
K.E. David Ltd.	
Citgo (r,ur)	
DeBlois Oil Co.	
Texaco (ur,up,usp)	Texaco
Citgo (ur,up,usp)	Sunoco
Sunoco (ur,up,usp)	Citgo

KEY:

Gasoline
(r) Regular
(ur) Unleaded regular
(p) Premium
(up) Unleaded premium
(sp) Super premium
(usp) Unleaded super premium
(o) Other
(d) Diesel

Gasoline	Motor Oil
Diamond Shamrock Refining & Mfg. Co.	
Diamond Shamrock (r,ur,usp)	Diamond Shamrock Triple Action
	Diamond Shamrock Equa Flo
	Genuine
	Golden State
	Approve ATF
Drakes Refining Stations	
Unino 76 (r,ur)	Kendall
	Quaker State
	Pennzoil
East Coast Oil Corp.	
East Coast (r,ur,up)	
Englefield Oil Co.	
Gulf (r,ur)	Duke
Marathon (r,ur)	Gulf
Mobil (r,ur)	Marathon
	Mobil
Exxon Company, U.S.A.	
Exxon (r,ur,)	Superflo High Performance
Exxon Plus (up)	Superflo Single Grade
Exxon Supreme (usp)	Superflo Multi-Grades
	Superflo Supreme Performance
Farm & Home Oil Co.	
Texaco (ur,up,usp,d)	Texaco
Amoco (ur,up,usp)	Amoco
BP (ur,up,usp)	BP
Fas-Stop, Inc.	
APCO (r,ur)	
Fleetman Inc.	
Fuelman (r,ur,up,d)	Oilman
F.O. Fletcher Oil, Inc.	
Veltex (r,ur)	
Price-Lees (r,ur)	
Fortmeyer Inc.	
Pennzoil (r,ur,p,up,sp,usp,o)	Citgo
Ashland (r,ur,p,up,sp,usp,o)	Pennzoil
Foster Oil Co.	
Union 76 (r,ur,usp)	Unocal
Boron (ur)	Boron BP
	Pennzoil
	Mobil
Franko Oil Co.	
Arco	Arco
H.N. Funkhouser & Co.	
Texaco (r, ur)	Quaker
Expon	Pennzoil
	Kendall
	Texaco Havoline
The Gas King Corp.	
Mobil	
Texaco	
Exxon	
Gasco Gasoline, Inc.	
Gasco (r, ur, up)	Gasco Premium
	Gasco-H.D. Premium
Geldbach Petroleum Co., Inc.	
Mobil	Mobil
General Oil Co., Inc.	
Regular leaded	
Regular unleaded	
Premium unleaded	
Global Petroleum Corp.	
Mobil	
Sun	
Conoco	
Global	
King	
Coastol	
Godwin Oil Co.	
Texaco	
Phillips	
Golden Gate Petroleum Co.	
Mobil (r, ur, up)	Bay Area/Diablo
Shell (r,ur, up)	Unocal
	Chevron
	Mobil
	Shell
Gresham Petroleum Co.	
Amoco (r, ur, up, d)	Amoco
Gulf Oil	
Gulf (r, ur, usp)	Gulflube
	Gulflube HD
	Gulflube XHD
	Super Duty
	Gulfpride
	Super Premium
Gull Industries Inc.	
Gull (r, ur, up)	
Highway Oil, Inc.	
Regular unleaded	Workingman's Friend
Premium unleaded	
Diesel	
Angus I. Hines Inc.	
Shell (r, ur, up,d)	Sentry
Texaco (r,ur,up,d)	
Sentry (r,ur,up,d)	
Citgo	
Hop-In Food Stores	
Hop-In w/ethanol(r,ur,up)	Empire
Union (ur,up,usp)	Havoline
Shell	Quaker State
Sunoco	Pennzoil
Horn Distributing Co., Inc.	
Gulf	
Hudson Farris Corp.	
APCO	Pennzoil
	Havoline
	Valvoline
	Phillips
	Quaker State
	Total
Hughes Energy Inc.	
Mobil	Mobil
	Emblem
Hull Oil Co.	
Chevron (r,ur,p,up,sp,usp,o)	Chevron
Hull (r,ur,p,up,sp,usp,o)	
Hunt Refining Co.	
Parade (r,ur,up)	
Huntley Jiffy, Inc.	
Huntley-Jiffy	Huntley-Jiffy
Phillips	
Citgo	
J. & L. Inc.	
	J&L Special
	J&L Certified HD
	J&L HD10W30, 10W40
Jacobus Petroleum Products Inc./ Jiffy Stop, Inc.	
Citgo	Citgo
Union	Union
Phillips	Phillips
Marathon	Marathon
Kellett Oil Co.	
Texaco (r,ur,p,up,sp,usp)	GRC
Phillips 66 (r,ur,p,up,sp,usp,o)	Texaco
Sinclair (r,ur,p,up,sp,usp)	
Kelley Williamson Co.	
Mobil (ur,up)	Citgo
Citgo (ur,up)	Mobil
Phillips (ur,up)	Kendall
Kent Distributors, Inc.	
Shell	P
Diamond Shamrock	Q
Phillips 66	
Kerr-McGee Refining Corp.	
KM (r,ur,up,usp,o)	Valu Lube
	Heavy Duty
	Blue Max All-Fleet
	Blue Velvet Fuel Efficient
Kickapoo Oil Co., Inc.	
Kickapoo (r,ur,p,up,d)	Kickapoo
	Pennzoil
Kimber Petroleum Corp.	
Amoco	Amoco
Citgo	Citgo
Mobil	Mobil
Kingston Oil Supply Corp.	
Mobil	Mobil
Getty	
Kirschner Bros. Oil Co.	
Chevron	
Getty	
Kunz Oil Co.	
Kolh	
Phillips	
Kwik Shop, Inc.	
Citgo	
Lake Shore Petrocorp	
Phillips 66 (r, ur)	Phillips Trop Artic
Marathon (r, ur)	Phillips All Season
H. C. Lewis Oil Co.	
Exxon (r, ur, usp)	Exxon
	Pennzoil
The Lyden Company	
Amoco (r,ur,usp,d)	Amoco
Citgo (r,ur,up)	Quaker State
	Valvoline
Marathon Petroleum Co.	
Mile Maker (r)	
Super M (p)	
Martin Oil Marketing, Ltd.	
Martin (r,ur,usp,o,d)	Martin All Season 5W30
	Martin All Season 10W30
	Martin All Season 10W40
McDowell Oil Service/Time Markets, Inc.	
Exxon (ur,up,usp)	Exxon
	Martin Economy
	Martin ATF Dexron II
McLeleer Oil, Inc.	
Unocal 76	Kendall
Marathon	Unocal 76
Sunoco	Marathon
	Sunoco

KEY:

Gasoline
(r) Regular
(ur) Unleaded regular
(p) Premium
(up) Unleaded premium
(sp) Super premium
(usp) Unleaded super premium
(o) Other
(d) Diesel

Gasoline	Motor Oil
Merchants Oil Inc.	
Dino (r,ur,p,up,sp,usp)	Sinclair
	Trop Arctic
	Pennzoil
	Quaker State
	Shell
Merit Oil Corp.	
Merit (r,ur,up)	Merit Special
	Merit 10W30
	Merit 10W40
	Merit ATF
M.G.S. Oil, Petroleum & General Trading Corp.	
Marathon (r,ur, up)	Marathon 20W50
	Marathon 15W40
	Marathon W20 & 30
	Arco W20 & 30
Mid-Continent Systems, Inc.	
Philips (ur,up)	Shell Rotella
Gulf (ur,up)	Delo
	Texaco Havoline
Midwest Petroleum Co.	
Sunoco	All Temp
Shell	Pennzoil
	Sun
	Shell
	Chevron
Mid-Missouri Oil Co.	
Shell (ur,up,usp)	Shell
Miller Enterprises, Inc.	
Unocal (r,ur,p,up,sp,usp,o)	
Philips (r,ur,p,up,sp,usp,o)	
Miller Oil Co.	
Mobil (r,ur,up)	Miller
Fina (r,ur,up)	Chevron
Exxon (r,ur,up)	Exxon
Citgo (r,ur,up)	Mobil
Philips (r,ur,up)	Amoco
Amoco (ur,up)	
Missouri Terminal Oil Co.	
Fina (r,ur,p,up,sp,usp,o,d)	Fina
Mobil Oil Corp.	
Mobil (r,ur,usp,o)	Mobil Regular
	Mobil Heavy Duty
	Mobil Super
	Mobil Delvac
	Mobil 1
Munro Petroleum & Terminal Corp.	
Shell	Shell
M.P.	Mobil
	Royal
Murphy Oil USA, Inc.	
Spur (ur,usp)	
Musket Corp.	
Love's (r,ur,usp,d)	Double Eagle Recond. 30W
	Sup-R-Lub 30W
	Sup-R-Lub 20W
	Pennzoil 20W
	Pennzoil 30W
	Quaker State Red 30W
National Oil & Gas Inc.	
Philips (r,ur,p,up,sp,usp)	Amoco
Marathon (r,ur,p,up,sp,usp)	Pennzoil
	Philips
	Mobil
	Quaker State
	Kendall
Neal, Inc.	
Fina (ur,up,usp,o)	Fina
Diamond Shamrock (ur,up,usp,o)	Amalie
	Pennzoil
	Quaker State
Nella Oil Co.	
1-Stop (r,ur,p,up,sp,usp,o)	
Exxon (r,ur,p,up,sp,usp,o)	
Beacon	
Arco	
Noco Energy Corp.	
Noco (r,ur,p,up,sp,usp)	Exxon
	Mobil
Olympian Oil Co.	
Olympic (r,ur,up,usp)	Kendall
Pal Oil Company, Inc.	
Gulf	Texaco
Atlantic	Gulf
Pal	Atlantic
CFM	Castrol
	Quaker State
	Pennzoil
Parker Oil Co., Inc.	
Union 76	Union 76
Exxon	Exxon
Citgo	Citgo
Petrol	Texaco
Patterson Oil Co., Inc.	
Mobil	Mobil
Gulf	Gulf
Citgo	Citgo
Peavey Oil Co.	
Texaco (r,ur,up,d)	Texaco
Pennzoil	
Pennzoil (r,ur,up,sp)	Pennzoil
	Wolf's Head
Petroleum Marketers, Inc.	
Shell	Shell
Exxon	Exxon
Citgo	Citgo
Petrotex Marketing Inc.	
Shell (r,ur,up)	Liberty
	Approved
	Fina
	Quaker State
	Pennzoil
	Shell
	Castrol
	Texaco
	Chevron
Pettway Oil Co.	
Amoco (ur,up,usp)	Amoco
	Citgo
	Mobil
	Philips
Phillips 66 Co.	
Philips (r,ur,p,up,sp,usp)	Unique
	M M Motor Oil
	Super HD II
	Trop Artic
	HDS
Piasa Motor Fuels, Inc.	
Unocal (r,ur,up,usp)	Conoco
Conoco (r,ur,up,usp)	Amoco
	Shell
	Valvoline
	Pennzoil
	Quaker State
Pilot Oil Corp.	
Pilot (r,ur,up)	Pilot
Pride of Texas Distributing Co. Inc.	
Texaco	
Diamond Shamrock	
Pride Oil Co., Inc. (Miss.)	
Pride (r,ur,p,up,sp)	Kendall
	Pennzoil
	Quaker State
	Havoline
Pride Oil Co. Inc. (Tenn.)	
Tenneco (r,ur,up)	Pennzoil
	Quaker State
	Havoline
	Kendall
Private Brand Services, Inc.	
	Pennzoil
	Quaker State
Publix Oil Co., Inc.	
Publix (r, ur, p, up, sp, usp, o)	
Quaker State Corp.	
Quaker State (r,ur,up)	Quaker State HD
	Quaker State HDX
	Universal Fleet
	Quaker State Super Blend
	Quaker State DeLuxe
	Quaker State Sterling
Quality Oil Co. Limited Partnership	
Shell (ur,up,usp)	Shell 30W
Quality Plus (r,ur,usp)	Shell X-100
	Shell Rotella
	Shell Fire & Ice
	Shell Fire & Ice 200
	Shell Truck Guard
Quarles Petroleum	
Shell	Shell
Texaco	
Quiktrip Corp.	
Redline (r,p,sp)	Redline
Red Hed Oil Co., Inc.	
	Cruise Master
	Valvoline
	Texaco
	Philips Trop Artic
	Pennzoil
	Quaker State
Reinauer Petroleum Inc.	
Citgo (r,ur,p,up,usp,o)	
Reinhardt Oil Corp.	
	Sunoco
	Citgo
Remote Services, Inc.	
Convenient (r,up,usp,d)	
River Oil Co.	
Philips 66	Philips 66
Kerr McGee	
Roach Oil Co.	
Texaco	Havoline
	URSA
Robinson Oil Co., Inc.	
Rotten Robbie (r,ur,usp,d)	
Ross Resources, Inc.	
Apco (r,ur)	
Royster Oil Co., Inc.	
Gulf (r,ur,sp)	Saphire
	Gulflube
	Pride Single G
	Super Premium
	Super Duty

KEY:

Gasoline
(r) Regular
(ur) Unleaded regular
(p) Premium
(up) Unleaded premium
(sp) Super premium
(usp) Unleaded super premium
(o) Other
(d) Diesel

Gasoline	Motor Oil
Russell Petroleum Corp.	
Texaco (ur,up,o)	Quaker Stae
Spur (ur,up,o)	Texaco
Saveway (ur,up,o)	
Sahara Oil Co., Inc.	
Texaco (r,up,usp,d)	
Santee Oil Co., Inc.	
Shell (r,ur,usp)	Shell
Marathon (r,ur,usp)	
SCASCO	
Texaco (r,ur,p,up,sp,usp,o)	Texaco
Hess (r,ur,p,up,sp, sp,o)	
Sears Oil Co. Inc.	
Sears (r,ur,p,up,sp,usp)	Sears Premium
	Sears Supreme
Shay Oil Co., Inc.	
Exxon (r,ur,p,up,sp,usp)	Exxon
Shelby Petroleum Corp.	
Peer (r,ur,p,up,sp,usp)	Bonus Regular
Bonus (r,ur,p,up,sp,usp)	Sail Premium
	Peer Premium
	Peer Heavy Duty
	Peer Multi-Grade
Shell Oil Co.	
Shell (r, ur, up, usp)	Shell
	X-100
	Fire & Ice 2000
	Super 2000
	Shell Truck Guard
Shotmeyer Bros. Petroleum Corp.	
Mobil	Mobil
SICO Co.	
Amoco	Citgo
Atlantic	Valvoline
Texaco	Amoco
Exxon	Atlantic
	Exxon
R.L. Smeltz Oil Co., Inc.	
Amoco	Amoco
Pennzoil	Pennzoil
	Quaker State
Smith-Shafer Oil Co.	
SS (r,ur,up)	Quaker State
	Pennzoil
SOS Oil Corp	
Gulf (ur,up)	Shell
SOS (ur,up,o)	Exxon
	Texaco
	Kendall
	Castrol
	Valvoline
Southern Counties Oil Co.	
Arco (ur,up)	Southern Counties Oil
Mobil (ur,up)	Chevron
Texaco (ur,up,o)	Unocal
So. Countries Oil	Mobil
	Texaco
	Shell
Southern Oil Co., Inc.	
Exxon	Exxon
	Pennzoil

KEY:

Gasoline
(r) Regular
(ur) Unleaded regular
(p) Premium
(up) Unleaded premium
(sp) Super premium
(usp) Unleaded super premium
(o) Other
(d) Diesel

Gasoline	Motor Oil
Southern States Co-op	
Southern States	Co-op
The Spencer Co., Inc.	
Amoco (ur,r,o)	LDO
Citgo (ur,r,o)	Amolube
	Ultimate
	Citgo All Season
Steuart Petroleum Co.	
Steuart (r,ur,p,up)	Cam2
	Pennzoil
Stevens Oil Co.	
Chevron (r,p,up,sp,usp,d)	Chevron RPM
	Custom
	Delo 400
Sumrall Oil Services, Inc.	
SOS	
Sun Refining and Marketing Co.	
Sunoco (r,ur,up,usp,o)	Sun Lube
	Ultra
	Ultra Super C.
Sunshine Jr. Stores, Inc.	
Jr. (r,ur)	Rallye
Citgo (r,ur)	Mobil
	Citgo
	Pennzoil
	Texaco-Havoline
	Quaker State
	Castrol
TCR, Inc.	
TCR (r,ur,p)	TCR
Texaco Inc.	
Texaco (r,ur,up,sp,o)	URSA Oil Extra Duty
	URSA Oil Super Plus
	URSA Oil Premium
	Havoline Premium
	Havoline Supreme
	Havoline High Performance
	Havoline Superior
Thornhill Oil Co.	
Amoco (r,ur,up)	Amolube
	LDO
	Ultimate
	Quaker State
Time Saver Stores Inc.	
	Golden State
	Quaker State
	Pennzoil
Tooley Oil Co.	
Tooley's (r,ur,sp,usp,d)	Shell
Shell (r,ur,sp,usp,d)	
Total Petroleum, Inc.	
Total (r,up)	Total Big Value
Vickers (ur,up)	Total Golden Supreme
	Total All Season
Transit Oil Co.	
Mobil	Mobil
Shell	Shell
Travelers Petroleum, Inc.	
Texaco (r,ur,up,sp)	Texaco
Self Way (r,ur,p,up)	Pennzoil
	Quaker State
Trenton Oil Co. Inc.	
Amoco (ur,up,usp)	Amoco
Triton Inc.	
Hoppy (r, ur, up)	
Tryon Oil Company	
Atlantic	Magnum
	Wolf's Head
	Atlantic

Gasoline	Motor Oil
Ultra Power Corp.	
Gulf (r,ur,p,up,sp,usp,o)	Foxhead
Ultra Power (r,ur,p,up,sp,usp,o)	Arco
	Gulf
Unocal Corp.	
76 (r,ur,up,usp)	Unocal Heavy Duty
	Unocal Premium
	Unocal Guardol
	Unocal Super 10W-30
	Unocal Super 10W-40
	Unocal 20W/50 High Performance
Vista Marketing Group Ltd.	
	Pennzoil
	Quaker State
Wake Up Oil Co.	
Wake Up (r,ur,usp)	
Warren Equities, Inc.	
Sunoco (r,ur,ultra)	Oilzum
Citgo (r,ur,usp)	Citgo
Mobil (r,ur,usp)	Sunoco
	Shell
	Mobil
	Castrol
Wesson, Inc	
Texaco	
Mobil	
West Penn Oil Co., Inc.	
	Emblem Oil
Western Marketing, Inc.	
Conoco (r,ur,usp)	Delco
Shell (r,ur,usp)	Conoco Par
	Conoco Fleet
	Conoco Super
	Conoco Fleet Supreme
	Shell Rotella
	Aero Shell
A. T. Williams Oil Co.	
Wilco (r, ur, up, usp)	Wilco Economy
	Wilco 30 HD
J.H. Williams Oil Co., Inc.	
Unocal (r,ur,up)	Unocal Custom
	Unocal HD
	Unocal
	Unocal Premium
	Unocal Super
	Unocal HD-20W50
The Wills Group, Inc	
Texaco (ur,up)	Havoline
Exxon (ur,up)	Super Flo
Amoco	
BP	
Wooten Oil Company	
Texaco (r,ur,up)	Texaco
Amoco (r,ur,up)	Amoco
Citgo (r,ur,up)	
World Oil Co.	
World (r,ur,up,usp)	
Shell	
Arco	
Texaco	
York Oil Co., Inc.	
Citgo (r,ur,p,up,sp,usp)	

Capital Spending in the Oil Industry: A 10-Year Overview, Revised and Updated

For the past 30 years, Chase Manhattan Bank has been publishing estimates of worldwide capital expenditures in the oil and gas industries. In 1987 and 1988, Chase Manhattan revised its data collection procedures and the new results are shown on this page. The new format reports only on exploration and production expenditures and on refinery expenditures. No longer available are the former estimates on pipelines, chemicals, marketing and transportation. To put the series on a firm footing, Chase Manhattan has revised all of the data back to 1977. The data below therefore are not compatible to information carried in the preceding issues of the NPN Factbook. Chase Manhattan said the new approach was necessary because, unlike the earlier days when a group of multi-national oil companies dominated the global industry, the roles of both production and consuming governments has increased and their presences are more noticeable in survey data.

(Millions of Dollars)

	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	10-Year Totals
United States											
Crude Oil and Natural Gas	24,830	43,640	48,060	42,260	52,210	54,730	36,990	27,410	20,030	16,630	366,670
Refineries*	2,800	3,710	3,710	4,400	6,730	5,530	4,000	3,080	2,080	1,530	37,570
Total	**27,630**	**47,350**	**51,770**	**50,660**	**58,940**	**60,260**	**40,990**	**30,490**	**22,110**	**18,160**	**408,360**

*Includes natural gas liquid plants.

	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	10-Year Totals
North America											
Crude Oil and Natural Gas	31,210	52,430	57,550	53,070	58,820	64,230	49,710	35,410	26,330	20,870	449,630
Refineries*	4,900	7,040	6,740	6,120	8,860	8,460	6,220	6,510	4,110	3,680	62,640
Total	**36,110**	**59,470**	**64,020**	**59,190**	**67,680**	**72,690**	**55,930**	**41,920**	**30,440**	**24,550**	**511,370**

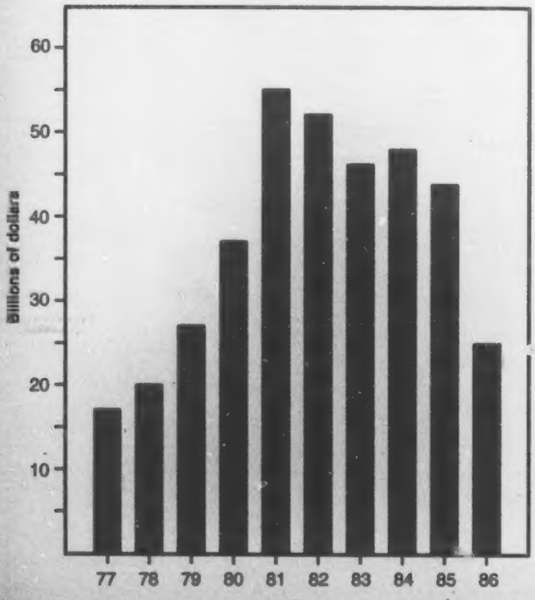
*Includes natural gas liquid plants.

	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	10-Year Totals
World											
Crude Oil and Natural Gas	54,470	77,370	83,900	83,160	91,410	90,700	72,100	53,030	41,000	34,130	681,270
Refineries*	10,000	12,050	12,430	12,820	17,660	17,100	14,030	12,930	9,310	7,690	126,020
Total	**67,280**	**91,000**	**98,500**	**100,860**	**115,370**	**114,100**	**90,240**	**68,600**	**53,380**	**46,160**	**845,490**

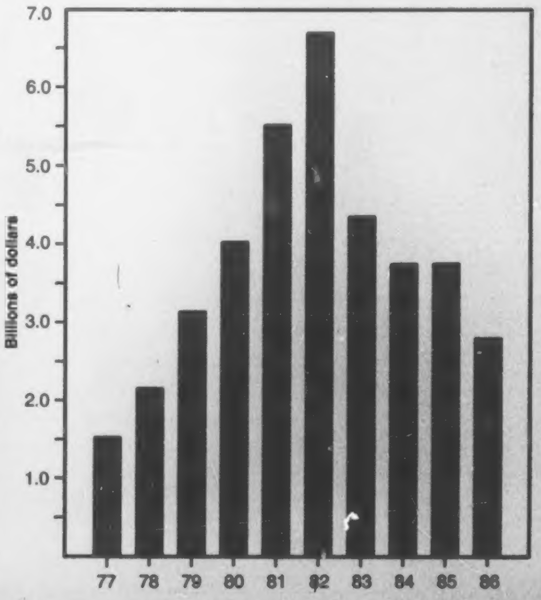
*Includes natural gas liquid plants but no liquified Natural Gas plants; the world total includes the LNG plants, however.

Source: Capital Investments of The World Petroleum Industry 1985 and 1986, Chase Manhattan Bank, New York, published in October 1988.

U.S. Capital Expenditures Exploration and Production

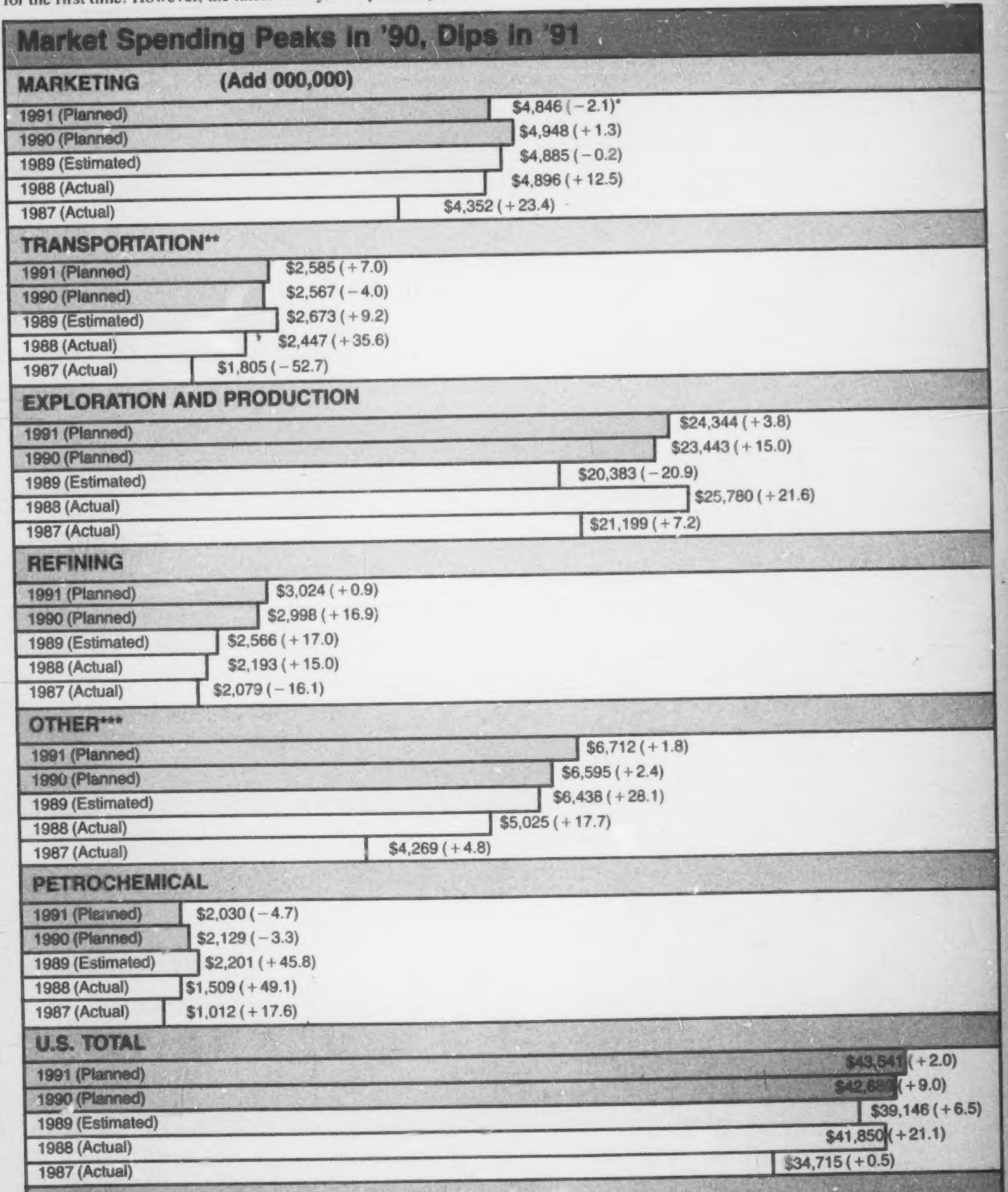


U.S. Capital Expenditures Refineries



Marketing Investments Leveling Off

Capital spending projections last Fall indicated that oil marketing investments were about to burst through the $5-billion plateau for the first time. However, the latest survey, as reported by Data Resources, Inc. subsidiary of McGraw-Hill, Inc. on June 1, presents a more modest, but still healthy, picture of growth through 1991.


Market Spending Peaks in '90, Dips in '91

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* Figures in parentheses indicate percentage change from previous year.

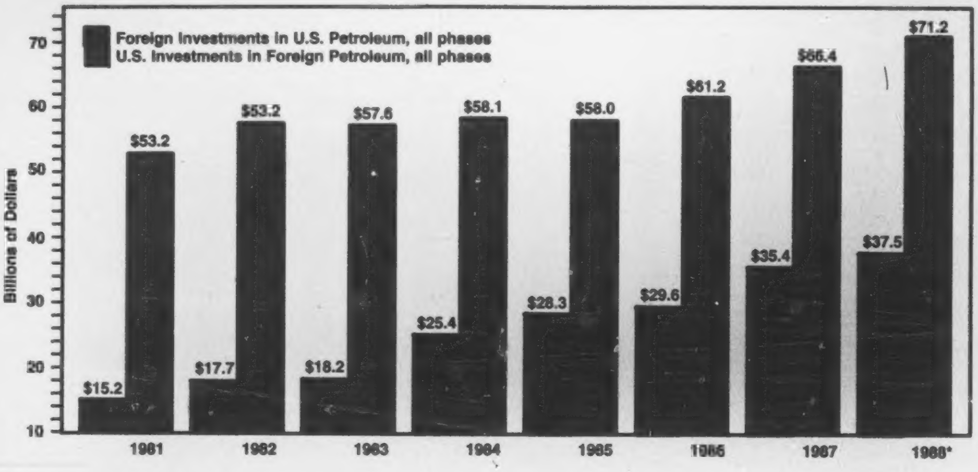
** Does not include gas pipelines.

*** Includes coal mining by oil companies.

X Insufficient replies to make valid projections.

Source: Data Research Inc./McGraw-Hill Inc. Thirty-ninth survey of Preliminary Plans for New Plants and Equipment 1987-1991, data collected in April-May and published June 1, 1989.

Foreign and U.S. Investments in Petroleum



* Estimated by NPN.
Source: Profiles of Foreign Direct Investment in U.S. Energy 1987, Energy Information Administration.

Several major joint ventures and outright acquisitions increased the stake foreign investors have in the U.S. oil industry by a substantial margin last year.

Perhaps more than in previous years, the major thrust of foreign direct investments (FDI) in 1988 focused on U.S. downstream (refining and marketing) assets as foreign producers sought a better foothold for their products in profitable U.S. marketplaces. Notable among these new ventures were the Saudi Arabia-Texaco, China-Coastal and Venezuela-Unocal partnerships, plus the purchase of Clark Oil by Canada's Horsham Corp.

Actually, the total FDI increased by a larger dollar amount from 1986 to 1987, as reported in an Energy Information Administration profile (See table below), than it did last year, based on NPN's projected total for 1988. However, the lion's share of the FDI increase in 1987 was accounted for by British Petroleum's multi-billion outlay to complete its purchase of Standard Oil stock.

In 1988, NPN estimates that foreign investors added approximately $3-billion to the FDI total, bringing that amount to about $37.5 billion at year's end. Last year was notable, too, because of the entry of two major new players—Saudi Arabia and China—into the U.S. petroleum market. Previously, the bulk of FDI's originated in Europe, primarily The Netherlands and the United Kingdom.

Although foreign firm investments still represent less than 10% of the domestic petroleum industry, percentages can be misleading. EIA's data indicates that foreign investors now own or market through one out of every three U.S. service stations, supply almost 25% of American gasoline needs and control about one-fifth of U.S. refinery capacity and approximately one out of every six domestic refineries.

Foreign Direct Investments in the U.S.

(Billions of dollars)

Year	FDI in U.S. Petroleum	Total FDI in U.S.	% Petroleum of Total
1988*	$37.5	$288.0	13.0%
1987	35.4	261.9	13.5
1986	29.1	220.4	13.2
1985	28.3	184.6	15.3
1984	25.4	164.6	15.4
1983	18.2	137.1	13.3
1982	17.7	124.7	14.2
1981	15.2	108.7	14.0

(*) Projected by NPN.

U.S. Direct Investments in Foreign Petroleum

Year	U.S. Direct Investment in Foreign Oil	Total U.S. Investment Abroad	% Petroleum of Total
1988*	$71.2	$329.0	21.6%
1987	66.4	308.8	21.5
1986	61.7	259.6	23.8
1985	57.7	230.2	25.1
1984	58.1	211.5	27.5
1983	57.7	230.2	25.1
1982	57.8	207.8	27.8
1981	53.2	228.3	23.3

(*) Projected by NPN.

FDIs in Marketing, Refining and Production(a)

	1987	1986	1985
Branded retail outlets			
FDI companies	39,624	40,590	32,721
U.S. total	115,870	120,150	124,600
% FDI of U.S. total	34.2%	33.8%	26.3%
Gasoline supplied (in thousands of b/d)			
Total FDIs	1,674	1,565	1,285
U.S. total	7,206	7,034	6,831
% FDI of U.S. total	23.2%	22.2%	18.8%
Refineries			
Total FDIs	34	33	29
U.S. total	213	219	216
% FDI of U.S. total	16.0%	15.1%	13.4%
Crude distillation capacity (in thousands of b/d)			
Total FDIs	3,342	3,133	2,656
U.S. total	15,915	15,566	15,459
% FDI of U.S. total	21.0%	20.1%	17.2%
Crude oil and NGL production (in thousands of b/d)			
Total FDIs	1,617	1,512	1,455
U.S. total	10,008	10,289	10,636
% FDI of U.S. total	16.2%	14.7%	13.7%
Crude oil and NGL proved reserves (millions of bbl.)			
Total FDIs	6,291	5,587	5,866
U.S. total	35,403	35,054	36,360
% FDI of U.S. total	17.8%	15.9%	16.1%

(a) EIA has revised many of the totals originally published last year for 1985 and 1986 in the categories shown. The revisions appear in the tables above.

How Oil Companies Handle

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED(a)	BRANDED SERVICE STATIONS			
			Supplied Directly	Supplied Through Jobbers and Commissioned Agents	Lessee/ Dealer-operated	Salary-operated
Ada Resources	97	1	40	13	52	0
Advanced Oil Co.	20	2	20	—	5	15
Agway Petroleum Corp.	232	9	80	2	76	4
American Petrofina, Inc.	3,458	24	185	2,581	18	145
American Refining Group, Inc.	8	1	8	0	0	6
Amoco Corp.	10,246	30	3,791	6,455	3,442	241
Anchor Gasoline Corp.	61	1	61	—	61	—
Arkansas Valley Petroleum	—	—	4	—	4	—
Armour Oil Co.	—	—	—	64	—	[illegible]
Ashland Oil, Inc.	2,110	19	0	469	469	0
Atlantic Refining & Marketing Corp.	1,091	6	665	426	339	246
Atlantic Richfield Products Co.	1,673	5	1,252	421	—	—
Aztex Enterprises	36	1	36	0	0	[illegible]
BP America, Inc.	7,413	20	2,426	4,888	1,025	1,047
Bagwell Oil Co., Inc.	30	2	15	—	2	—
E.M. Bailey	60	3	60	—	—	—
Beacon Oil Company	350	2	30	172	32	116
Bell Fuels, Inc.	5	2	5	0	1	4
Best Oil Co.	16	1	15	—	1	15
Bostick Brothers, Inc.	6	1	6	0	0	0
Bradley Petroleum Inc.	33(A)	3	0	0	0	0
Bray Terminals, Inc.	75	2	55	20	75	0
Brennan Petroleum Corp.	1	1	1	0	0	1
Browning Oil Co.	28	1	26	—	26	—
Buhrmaster Energy Group	2	1	0	2	2	0
Dennis K. Burke, Inc.	1	1	1	0	0	1
Campbell Oil Co.	83	1	13	—	13	—
Cannon Oil Corp.	17	3	—	—	—	—
Cel Oil Products Corp.	13	1	13	0	0	13
Cenex	972	14	961	11	7	61
Center Independent Oil Co.	20	1	16	—	7	13
Certified Oil Co.	175	3	165	—	—	165
Champlain Oil Co.	102	4	42	10	46	[illegible]
Chaney Oil Co. of Vicksburg Inc.	16	1	11	5	4	6
Chapman, Inc.	32	1	32	0	18	14
Chevron Corp.	11,969(B)	33	4,185	5,789	9,317	657
W.R. Childress Oil Co., Inc.	55	1	—	7	7	—
Circle K Corp.	847	22	—	—	0	—
Citgo Petroleum Corp.	7,697	40	—	—	—	—
Clark Oil & Refining Corp.	946	12	946	0	19	927
The Coastal Corp.	850	22	740	110	210	632
Coen Oil Co.	0	0	—	—	—	—
Colonial Oil Industries, Inc.	62	3	62	0	0	[illegible]
Commander Oil Corp.	—	—	—	—	—	—
Como Oil Co.	95	3	95	—	—	—
Conoco Inc.	4,843	37	477	4,366	4,366	477
Consumers Gasoline Stations Inc.	—	—	29	—	—	29
Consumers Oil	46	2	46	—	26	6
Convenient Petroleum Corp.	49	1	49	0	18	[illegible]
Cook & Cooley, Inc.	70	1	55	15	50	20
Crockett Oil Co.	20	4	20	0	13	7
Crown Central Petroleum Corp.	730	8	680	50	100	630
Crystal Flash Petroleum Corp.	25	1	25	0	0	25
Crystal Petroleum						
Curtis Parker Oil Co. Inc.	22	1	16	6	21	1
Curt's Oil Co., Inc.	22	5	22	0	0	22
Dairy Mart Convenience Stores, Inc.	429	15	—	—	—	—
K.E. David, Ltd.	4	1	4	—	1	—
DeBlois Oil Co.	41	2	—	—	11	30
Diamond Shamrock Refining & Marketing Co.	1,973	8	618	1,355	—	618
Dickey Inc.	5	1	5		1	—
Drakes Refinery Stations, Inc.	5	1	—	5	0	5
East Coast Oil Corp.	40	1	40	0	0	[illegible]
Emro Marketing Co.	1,375	18	1,376	—	—	1,376
Engelfield Oil Co.	245	2	245	0	195	50
Exxon Co., U.S.A.	12,456	37	4,228	8,228	2,909	632
[illegible] & Home Oil Co.	40	2	40	0	29	[illegible]
Fas-Stop, Inc.	4	1	4	—	—	4
Fleetman, Inc.	86	3	50	36	0	[illegible]
Fleischill Oil Co.	5	1	5	—	—	—
F.O. Fletcher Oil, Inc.	16	3	16	—	—	3
Flying J Inc.	90	13	80	—	—	90
Foster Oil Co.	70	1	31	—	1	[illegible]
Franko Oil Co.	49	2	49	0	2	47
H.N. Funkhouser & Co.	15	1	—	—	1	[illegible]
The Gas King						
Gasco Gasoline, Inc.	56	1	42	14	14	39
Geldbach Petroleum Co., Inc.						
General Oil Co.	35	1	—	—	—	—

(a) Includes District of Columbia.

Product Distribution

				BRANDED JOBBERS/COMMISSIONED AGENTS			
					Number selling . . .		
Commission-operated	Full-service only	Self-service only	Self-service/ Full-service	Total	Gasoline only	Fuel Oil only	Gasoline/ Fuel Oil
1	28	6	19	15	—	—	15
—	15	5	—	—	—	—	—
3	4	75	4	19	3	—	16
0	138	2,213	415	410	11	—	399
2	0	8	0	—	—	—	—
108	1,025	1,536	7,685	1,123	—	—	—
—		61		10	10	—	—
—	2	—	2	2	—	—	2
—	—	64	—	—	—	—	—
0	399	10	60	292	—	—	292
6	385	630	76	71	11	—	60
—	—	—	—	37	29	—	8
0	0	34	2	—	—	—	—
312	72	341	946	470	—	—	470
13	5	—	10	—	—	—	—
—	—	—	—	—	—	—	—
—	7	143	32	33	—	—	33
0	4	1	0	—	—	—	—
0	1	15	0	—	—	—	—
6	1	4	1	—	—	—	—
0	0	0	0	—	—	—	—
0	0	0	75	—	—	—	—
0	0	1	0	—	—	—	—
—	2	4	16	—	—	—	—
0	0	0	2	2	2	—	—
0	1	0	0	1	—	—	1
—	—	—	13	—	—	—	—
—	—	—	—	—	—	—	—
0	7	6	0	—	—	—	—
0	133	252	587	—	73	—	899
0	9	11	0	—	—	—	—
—	—	—	165	—	—	—	—
0	—	—	—	3	—	—	3
6	—	—	—	2	—	—	—
0	4	14	14	20	20	—	—
—	3,000	2,974	4,000	—	—	50	671
—	—	—	7	10	—	—	—
0	0	—	0	—	—	—	—
—	—	—	—	383	—	—	—
0	2	926	18	—	—	—	—
8	6	836	8	218	218	—	—
—	—	—	—	—	—	—	—
56	3	3	56	—	—	—	—
—	—	—	—	—	—	—	—
—	10	85	—	4	—	—	4
0	920	3,003	920	720	720	—	—
—	[illegible]	24	1	—	—	—	—
14	46	—	—	—	—	—	—
0	0	31	18	49	49	—	—
0	0	66	14	4	—	—	4
0	4	15	1	—	12	—	8
0	0	0	730	—	—	—	—
0	0	24	1	2	—	—	2
0	9	5	8	2	—	—	2
0	0	22	0	—	—	—	—
—	—	—	—	—	—	—	—
—	3	1	—	—	3	—	1
—	20	21	0	41	41	—	—
—	—	1,946	27	141	141	—	—
0	4	1	—	—	—	—	—
0	1	38	1	—	—	—	—
—	3	1,373	—	—	—	—	—
0	48	66	131	3	—	—	3
—	—	—	—	724	323	4	397
5	17	13	10	—	—	—	—
—	—	3	1	—	—	—	—
10	0	86	0	2	—	—	2
—	—	5	—	—	—	—	5
13	12	4	—	3	—	—	3
—	4	—	86	—	—	—	—
0	6	23	2	1	—	—	1
0	40	9	0	—	—	—	—
—	—	—	6	—	—	—	—
3	2	39	15	—	—	—	—
—	—	—	—	2	—	—	2

BULK PLANTS				TERMINALS				
	Company-operated				Company-operated			
Total	Salary-operated	Commission-operated	Jobber-operated Bulk Plants	Total	Salary-operated	Commission-operated	Jobber-operated Terminals	Company
3	2	1	14	—	—	—	—	Ada Resources
—	—	—	—	—	—	—	—	Advanced Oil Co.
119	119	0	16	10	10	0	—	Agway Petroleum Corp.
0	—	—	205	8	8	0	0	American Petrofina, Inc.
0	0	0	0	1	1	0	0	American Refining Group, Inc.
0	0	0	1,781	83	83	0	—	Amoco Corp.
10	—	10	—	2	—	—	—	Anchor Gasoline Corp.
1	—	—	1	0	—	—	—	Arkansas Valley Petroleum
—	—	—	—	—	—	—	—	Armour Oil Co.
127	5	122	—	31	31	0	—	Ashland Oil, Inc.
1	0	0	1	18	18	0	0	Atlantic Refining & Marketing Corp.
0	0	0	—	34	—	—	—	Atlantic Richfield Products Co.
1	1	0	—	1	1	0	—	Aztex Enterprises
83	0	83	—	60	60	0	—	BP America, Inc.
2	2	0	—	1	1	0	—	Bagwell Oil Co., Inc.
4	—	4	—	—	-	—	—	E.M. Bailey
23	—	—	23	0	—	—	—	Beacon Oil Company
1	1	0	—	1	1	0	—	Bell Fuels, Inc.
—	—	—	—	—	—	—	—	Best Oil Co.
2	2	0	—	1	1	0	—	Bostick Brothers, Inc.
0	—	—	—	0	—	—	—	Bradley Petroleum Inc.
—	—	—	—	3	3	0	—	Bray Terminals, Inc.
0	0	0	—	0	0	0	—	Brennan Petroleum Co.
2	2	0	—	0	0	0	—	Browning Oil Co.
—	—	—	—	—	—	—	—	Buhrmaster Energy Group
0	0	0	—	0	0	0	—	Dennis K. Burke, Inc.
3	0	0	3	0	0	0	0	Campbell Oil Co.
0	—	—	—	0	—	—	—	Cannon Oil Corp.
1	—	—	—	0	0	0	—	Cel Oil Products Corp.
—	—	—	837	7	6	1	0	Cenex
1	1	0	—	1	1	0	—	Center Independent Oil Co.
—	—	—	—	2	2	0	—	Certified Oil Co.
0	0	0	—	0	0	0	—	Champlain Oil Co.
0	—	—	—	0	—	—	—	Chaney Oil Co. of Vicksburg Inc.
2	2	0	—	0	0	0	—	Chapman, Inc.
871	0	0	871	120	89	1	30	Chevron Corp.
3	3	—	—	—	—	—	—	W.R. Childress Oil Co., Inc.
0	0	0	—	0	0	0	—	Circle K Corp.
0	0	0	—	43	43	0	—	Citgo Petroleum Corp.
0	0	0	—	13	13	0	—	Clark Oil & Refining Corp.
10	2	8	0	237	49	188	0	The Coastal Corp.
1	—	—	—	—	—	—	—	Coen Oil Co.
1	1	0	—	2	0	2	—	Colonial Oil Industries, Inc.
3	3	0	—	3	3	0	—	Commander Oil Corp.
6	6	—	—	0	—	—	—	Como Oil Co.
0	—	—	—	402	51	—	0	Conoco Inc.
0	0	0	—	0	0	0	—	Consumers Gasoline Stations Inc.
1	—	—	1	—	—	—	—	Consumers Oil
—	—	—	—	1	1	—	—	Convenient Petroleum Corp.
0	0	0	—	0	0	0	—	Cook & Cooley, Inc.
—	—	—	—	—	—	—	—	Crockett Oil Co.
—	—	—	—	—	11	0	—	Crown Central Petroleum Corp.
4	2	2	0	0	0	0	—	Crystal Flash Petroleum Corp.
								Crystal Petroleum
3	1	2	0	0	0	0	—	Curtis Parker Oil Co. Inc.
0	0	0	—	0	0	0	—	Curt's Oil Co., Inc.
0	0	0	—	0	0	0	—	Dairy Mart Convenience Stores, Inc.
—	—	—	—	3	3	—	—	K.E. David, Ltd.
2	2	0	—	1	1	0	—	DeBlois Oil Co.
2	2	0	—	10	10	0	—	Diamond Shamrock Refining & Marketing Co.
								Dickey Inc.
0	0	0	—	0	0	0	—	Drakes Refinery Stations, Inc.
0	0	0	—	0	0	0	—	East Coast Oil Corp.
1	1	—	—	0	—	—	—	Emro Marketing Co.
9	8	1	1	—	—	—	—	Englefield Oil Co.
0	0	0	—	61	61	0	—	Exxon Co., U.S.A.
4	4	0	—	1	1	0	—	Farm & Home Oil Co.
0	—	—	—	0	—	—	—	Fas-Stop, Inc.
1	1	0	—	1	—	—	—	Fleetman, Inc.
6	—	—	6	0	—	—	—	Fleischill Oil Co.
0	—	—	—	0	—	—	—	F.O. Fletcher Oil, Co.
7	—	—	7	—	—	—	—	Flying J Inc.
3	3	0	1	0	0	0	—	Foster Oil Co.
—	—	—	—	—	—	—	—	Franko Oil Co.
3	3	—	—	—	—	—	—	H.N. Funkhouser & Co.
								The Gas King
—	—	—	—	—	—	—	—	Gasco Gasoline, Inc.
								Geldbach Petroleum Co., Inc.
1	0	1	—	—	—	—	—	General Oil Co.

(A) Includes Sav-O-Mat Inc. (B) Excludes airport, marine outlets, new car dealerships.

How Oil Companies Handle

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	BRANDED SERVICE STATIONS			
			Supplied Directly	Supplied Through Jobbers and Commissioned Agents	Lessee/ Dealer-operated	Salary-operated
Getty Petroleum Corp.						
Giant Industries, Inc.	21	3	—	—	—	—
Global Petroleum Corp.	137	10	137	—	117	20
Godwin Oil Co.	15	1	—	5	5	—
Gresham Petroleum Co.	30	1	3	—	1	2
Jack Griffith Petroleum	12	1	12	—	—	12
Gulf Oil	4,463	12	1,954	2,509	427	964
Harris Enterprises Inc.	22	2	22	0	20	2
Hawaiian Energy, Inc.	21	1	21	—	—	21
Highland Petroleum, Inc.	9	5	—	—	—	—
Highway Oil, Inc.	212	22	212	0	0	180
Angus I. Hines, Inc.	55	3	—	—	5	2
Barney Holland Oil Co.	90	1	44	—	44	—
Hop-In Food Stores	151	4	7	—	—	7
Hough Fuel	—	—	59	0	57	0
Huck's Convenience Stores	95	4	90	5	0	95
Hudson Oil Co.	11	2	11	0	0	11
Hughes Energy, Inc.	40	1	15	—	10	—
Hull Oil Co.	28	2	8	2	2	8
Hunt Refining Co.	130	2	2	128	20	110
Huntley Jiffy, Inc.	60	2	—	—	—	—
J. & L. Oil, Inc.	58	3	55	—	4	51
Jacobus Petroleum Products, Inc.	39	1	0	39	28	10
Jiffy Stop Inc.	11	1	1	—	—	—
Johnson Products, Inc.	65	6	60	5	—	65
Kellett Oil Co.	10	1	10	—	6	—
Kelley Williamson Co.	35	2	—	8	8	—
Kent Distributors, Inc.	8	1	—	6	0	0
Kerr-McGee Refining Corp.	1,941	21	110	1,831	1,292	583
Kimber Petroleum Corp	89	1	89	0	74	15
Kirschner Bros. Oil Co.	10	3	3	7	7	3
Kunz Oil Co.	29	1	21	—	9	12
Kwik Shop, Inc.	34	2	—	—	—	—
Lakeside Oil Co., Inc.	111	1	111	0	111	0
H.C. Lewis Oil Co.	30	1	15	—	15	—
Martin Oil Marketing, Ltd.	43	2	43	0	0	43
Mauger & Co.	41	1	41	0	25	16
Marathon Petroleum Co.	2,527	8	556	1,971	556	0
McCall Oil Co.	1	1	1	—	—	—
McDowell Oil Service Inc.	29	1	29	—	—	—
McLeiser Oil, Inc.	65	1	—	—	—	—
Merchants Oil Inc.	42	1	42	—	16	10
Merritt Truax, Inc.	40	1	40	0	39	1
Mid-Continent Systems, Inc.	34	4	34	—	—	34
Mid-Missouri Oil Co.	15	1	3	—	3	—
Mid-States Petroleum	121	3	121	—	78	38
Midwest Petroleum Co.	127	2	127	—	60	67
Miller Enterprises, Inc.	86	—	—	—	—	—
Miller Oil Co.	100	2	68	—	56	12
Mini-Mart Inc.	117	6	77	40		117
Missouri Terminal Oil Co.	35	2	19	0	19	0
Mobil Oil Corp.	11,074	36	4,624	6,450	2,562	722
Munro Petroleum Terminal Corp.	32	1	—	4	2	2
Murphy Oil USA, Inc.	663	14	487	176	176	—
Musket Corp.	119	6	119	—	—	119
National Oil & Gas Inc.	91	2	80	8	69	2
National Oil Co.	371	14	0	371	—	—
Neal, Inc.	28	1	0	—	—	—
Nella Oil Co.	29	1	20	9	—	27
Newell Oil Co., Inc.	15	1	—	15	10	—
Northville Industries Corp.	110	2	75	35	110	—
Oils Inc./Wright Industries	18		18	0	—	0
Olympian Oil Co.	45	1	45			19
Pacer Oil Co.	—	4	—	—	—	—
Pal Oil Company Inc.	64	2	64	—	54	8
Parker Oil Co., Inc.	160	3	10	—	10	—
Promana, Inc.	17	1	17	—	—	—
Patterson Oil Co., Inc.	38	1	38	—	24	14
PDQ Food Stores, Inc.	69	4	0	—	—	—
Peavy Oil Co.			8	—	4	4
Pekin Energy Co.	—	—	—	—	—	—
Pennzoil Products Co.	543	8	69	426	49	20
Petroleum Marketers, Inc.	157	2	30	—	25	5
Petroleum Products Corp.	40	1	—	40	—	—
Petroleum Sales & Service	40	1	28	—	17	—
Petrotex Marketing Inc.	23	1	15	—	—	—

Product Distribution (cont'd.)

				BRANDED JOBBERS/COMMISSIONED AGENTS			
					Number selling . . .		
Commission-operated	Full-service only	Self-service only	Self-service/ Full-service	Total	Gasoline only	Fuel Oil only	Gasoline/ Fuel Oil
—	0	21	0	—	—	—	—
—	95	42	—	—	—	—	—
—	—	—	5	—	—	—	—
—	—	—	3	—	—	—	—
—	—	12	—	—	12	—	—
—	2,455	1,115	893	134	80	—	54
0	0	0	22	—	—	—	—
—	—	21	—	—	—	—	—
—	—	—	—	9	9	—	—
32	100	32	80	—	—	—	—
—	1	—	6	—	—	—	—
—	14	20	10	—	—	—	—
—	—	7	—	24	24	—	—
2	59	—	—	—	—	—	—
0	0	95	0	—	100	—	—
0	8	3	0	—	—	—	—
—	5	—	—	—	35	—	5
—	—	9	1	1	—	—	1
0	0	130	0	50	—	—	50
—	—	—	—	—	—	—	—
—	3	52	—	—	—	—	—
1	0	14	25	6	—	—	6
—	—	—	—	—	—	—	—
—	—	—	65	—	—	—	—
—	2	6	2	3	0	0	0
—	3	—	5	2	—	—	2
0	—	6	—	8	8	—	—
66	179	790	972	485	66	2	417
0	89	0	0	—	—	—	—
—	2	—	8	1	—	—	—
0	13	6	2	—	—	—	—
—	—	—	—	—	—	—	—
0	2	85	24	—	—	—	—
—	5	—	10	—	—	—	—
0	0	43	0	—	—	—	—
0	0	41	0	—	—	—	41
0	316	456	1,747	219	—	—	219
1	1	—	—	—	—	—	—
—	—	29	—	—	—	—	—
—	—	—	—	—	—	—	—
16	11	12	19	—	—	—	—
0	40	0	0	—	—	—	—
—	4	30	—	—	—	—	—
—	—	1	2	—	—	—	—
5	46	44	31	4	—	1	3
—	13	76	36	—	—	—	—
—	—	—	—	114	114	—	—
		8	60	—	—	—	—
—	—	117	—	40	—	—	40
0	0	7	12	4	1	0	3
0	—	—	—	1,124	1	492	631
—	—	—	4	—	—	—	—
—	20	623	20	0	—	—	—
—	—	119	—	—	—	—	—
15	5	20	61	23	—	—	23
371	—	371	—	18	—	—	18
—	—	—	—	1	—	—	1
2	—	29	—	—	—	—	—
5	1	6	8	—	—	—	—
—	50	40	20	4	2	—	2
0	0	0	18	0	—	—	—
—	—	19	26	2	—	—	2
—	—	—	—	—	—	—	—
2	15	45	4	—	—	—	—
—	—	—	10	—	—	—	—
—	—	17	—	0	—	—	—
—	10	11	17	0	—	—	—
—	—	69	—	0	—	—	—
—	—	—	4	0	—	—	—
—	—	—	—	—	—	—	—
426	50	290	145	93	2	—	91
—	—	—	30	—	—	—	—
—	—	30	10	—	—	—	—
11	28	—	—	0	—	—	—
—	—	—	15	—	—	—	—

BULK PLANTS				TERMINALS				
	Company-operated				Company-operated			
Total	Salary-operated	Commission-operated	Jobber-operated Bulk Plants	Total	Salary-operated	Commission-operated	Jobber-operated Terminals	Company
								Getty Petroleum Corp.
0	0	0	—	0	0	0	—	Giant Industries, Inc.
—	—	—	—	44	5	—	—	Global Petroleum Corp.
1	—	—	—	—	—	—	—	Godwin Oil Co.
—	—	—	—	—	—	—	—	Gresham Petroleum Co.
—	—	—	—	—	—	—	—	Jack Griffith Petroleum
—	—	—	—	28	19	—	48	Gulf Oil
3	—	—	—	—	—	—	—	Harris Enterprises Inc.
—	—	—	—	—	—	—	—	Hawaiian Energy, Inc.
0	0	0	—	0	0	0	—	Highland Petroleum, Inc.
0	0	0	—	0	0	0	—	Highway Oil, Inc.
4	4	0	0	0	0	0	—	Angus I. Hines, Inc.
2	2	0	—	0	0	0	—	Barney Holland Oil Co.
5	5	0	—	0	0	0	—	Hop-In Food Stores
1	1	—	—	0	—	—	—	Hough Fuel
—	—	—	—	—	—	—	—	Huck's Convenience Stores
0	0	0	—	0	0	0	—	Hudson Oil Co.
1	—	—	1	—	—	—	0	Hughes Energy, Inc.
1	—	—	1	0	0	0	—	Hull Oil Co.
1	1	0	25	3	1	—	—	Hunt Refining Co.
0	0	0	—	6	—	—	—	Huntley Jiffy, Inc.
0	0	0	—	0	0	0	—	J. & L. Oil, Inc.
8	3	1	4	2	2	0	—	Jacobus Petroleum Products, Inc.
—	—	—	—	—	—	—	—	Jiffy Stop Inc.
0	—	—	—	0	—	—	—	Johnson Products, Inc.
2	2	—	—	—	—	—	—	Kellett Oil Co.
4	2	2	—	0	0	0	—	Kelley Williamson Co.
0	0	0	—	0	0	0	—	Kent Distributors, Inc.
332	2	0	—	18	16	0	2	Kerr-McGee Refining Corp.
0	0	0	—	0	0	0	—	Kimber Petroleum Corp.
0	—	—	—	0	—	—	—	Kirschner Bros. Oil Co.
0	0	0	—	0	0	0	—	Kunz Oil Co.
0	0	0	—	0	0	0	—	Kwik Shop, Inc.
2	—	—	—	—	2	—	—	Lakeside Oil Co., Inc.
1	1	0	—	0	0	0	—	H.C. Lewis Oil Co.
0	0	0	—	2	2	0	—	Martin Oil Marketing, Ltd.
—	—	—	—	—	—	—	—	Mauger & Co.
350	—	—	350	52	—	—	—	Marathon Petroleum Co.
2	2	—	—	—	—	—	—	McCall Oil Co.
—	—	—	—	—	—	—	—	McDowell Oil Service Inc.
—	—	—	—	—	—	—	—	McLeieer Oil, Inc.
—	—	—	—	—	—	—	—	Merchants Oil Inc.
4	4	0	—	0	0	0	—	Merritt Truax, Inc.
1	1	—	—	4	4	—	—	Mid-Continent Systems, Inc.
—	—	—	—	—	—	—	—	Mid-Missouri Oil Co.
11	7	0	4	1	—	1	—	Mid-States Petroleum
—	—	—	—	—	—	—	—	Midwest Petroleum Co.
0	—	—	—	0	—	—	—	Miller Enterprises, Inc.
0	—	—	—	0	—	—	—	Miller Oil Co.
0	—	—	—	0	—	—	—	Mini-Mart Inc.
0	0	0	0	1	1	0	1	Missouri Terminal Oil Co.
4		4	892	69	69	0	0	Mobil Oil Corp.
—	1	—	—	—	1	—	—	Munro Petroleum Terminal Corp.
0	—	—	—	22	22	—	—	Murphy Oil USA, Inc.
—	—	—	—	—	—	—	—	Musket Corp.
20	—	20	0	0	—	—	—	National Oil & Gas Inc.
32	—	32	—	21	—	21	—	National Oil Co.
—	—	—	—	—	—	—	—	Neal, Inc.
—	—	—	—	—	—	—	—	Nella Oil Co.
1	1	—	—	—	—	—	—	Newell Oil Co., Inc.
—	—	—	—	6	6	—	—	Northville Industries Corp.
0	—	—	—	0	—	—	—	Oils Inc./Wright Industries
2	—	2	—	—	—	—	—	Olympian Oil Co.
—	—	—	—	—	—	—	—	Pacer Oil Co.
1	1	—	—	—	—	—	—	Pal Oil Company Inc.
11	11	—	—	1	1	—	—	Parker Oil Co., Inc.
0	—	—	—	0	—	—	—	Promena, Inc.
1	—	—	—	0	—	—	—	Patterson Oil Co., Inc.
0	—	—	—	0	—	—	—	PDQ Food Stores, Inc.
1	1	—	—	0	—	—	—	Peavy Oil Co.
—	—	—	—	26	1	25	—	Pekin Energy Co.
22	2	—	20	2	2	—	—	Pennzoil Products Co.
7	—	—	—	0	—	—	—	Petroleum Marketers, Inc.
—	—	—	—	5	5	—	—	Petroleum Products Corp.
0	—	—	—	0	—	—	—	Petroleum Sales & Service
2	2	—	—	—	—	—	—	Petrotex Marketing Inc.

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	BRANDED SERVICE STATIONS			
			Supplied Directly	Supplied Through Jobbers and Commissioned Agents	Lessee/ Dealer-operated	Salary-operated
Pattway Oil Co.	45	2	—	—	—	—
Phillips 66 Co.	9,757	33	239	9,518	7,103	2,645
Piasa Motor Fuels Inc.	26	2	26	—	20	5
JW Pierson Co.	1	1	1	—	—	—
Pride of Texas Dist. Co.	41	1	—	10	10	—
Pride Oil Co., Inc. (Miss.)	19	2	19	—	1	2
Pride Oil Co., Inc. (Tenn.)	12	1	12	—	10	2
Private Brand Services Inc.	1	1	1	—	—	1
Quaker State	196	4	4	192	—	4
Quality Oil Corp. Inc., Limited Partnership	100	2	94	6	55	24
Quarles Petroleum	75	1	10	—	—	—
Quiktrip Corp.	243	5	0	—	—	—
Racetrac Petroleum, Inc.	313	13	313	—	136	177
RECO Petroleum, Inc.	111	3	45	—	—	40
Red Hed Oil Co., Inc.	35	1	6	—	1	—
Reinauer Petroleum Co.	14	1	12	—	12	—
Reinhardt Corp.	35	1	1	—	—	—
Remote Services, Inc.	278	9	0	—	—	—
Republic Oil Corp.	4	1	—	4	—	4
Reynolds Industries, Inc.	4	2	4	—	—	4
Rich Oil Inc.	84	3	84	—	—	—
River Oil Co.	53	2	53	—	42	3
Roach Oil Co.	10	2	10	—	5	5
Robinson Oil Co., Inc.	25	1	24	—	—	24
Royster Oil Co., Inc.	41	1	20	20	20	—
Russell Petroleum Corp.	48	1	2	—	2	—
Sahara Oil Co., Inc.	22	1	6	—	6	—
Santee Oil Co., Inc.	15	1	12	—	7	5
SATCO	30	2	4	—	1	3
SCASCO	40	1	21	—	10	2
Schaeffer Oil, Inc.	7	2	7	—	—	7
Shay Oil Co., Inc.	20	1	20	—	—	20
Shelby Petroleum Corp.	20	2	20	—	—	20
Shell Oil Co.	10,847	41	4,565	—	4,284	281
Shotmeyer Bros. Petroleum Corp.	32	1	28	—	10	—
SICO Co.	145	3	145	—	75	21
Sing Oil Co.	8	1	8	—	—	6
R.L. Smeltz Oil Co., Inc.	18	1	—	18	8	—
Smith-Schafer Oil Co.	5	1	5	0	0	5
SOS Oil Corp.	55	1	55	—	3	—
Southern Counties Oil Co.	50	1	50	—	40	10
Southern Oil Co., Inc.	8	1	—	4	2	1
The Spencer Companies	55	1	5	—	5	—
Stevens Oil Co.	50	1	—	20	20	—
Sugarcreek Corp.	280	2	276	4	180	100
Sumrall Oil Services, Inc.	75	1	0	—	—	—
Sun Refining & Marketing Co.	7,058	28	2,666	3,933	6,266	333
Sunshine Jr. Stores, Inc.	311	—	—	—	—	—
Tartan Oil Corp.	56	2	56	—	—	—
Taylor Oil Co.	21	1	21	—	—	21
Texaco Inc.	15,389	45	2,752	10,423	12,198	690
Texas Star Oil Co.	18	1	—	—	—	—
Thornhill Oil Co., Inc.	28	1	—	28	20	8
Thornton Oil Corp.	102	7	102	—	—	102
Time Saver Store	55	1	—	—	—	—
Tooley Oil Co.	9	1	9	—	—	9
Total Petroleum, Inc.	1,439	20	509	930	457	1,480
Transit Oil Co.	43	1	10	—	—	15
Trenton Oil Co.	37	1	37	—	26	—
Ultra Power Corp.	7	1	7	—	2	4
United Refining Co.	294	3	293	—	—	203
Unocal Corp.	10,926	43	2,844	8,082	2,698	146
Vista Marketing Group Ltd.	15	4	15	0	0	15
Waco Oil Co. Inc.	15	2	—	—	—	15
Wake Up Oil Co., Inc.	38	1	38	—	—	38
Warelubco, Inc.	93	5	92	1	—	—
Warren Equities, Inc.	263	8	263	—	87	196
Webster Oil Co.	32	1	15	—	13	2
Wesson Inc.	40	1	40	—	25	12
Western Marketing Inc	127	1	123	—	—	11
A.T. Williams Oil Co.	88	2	88	—	—	88
J.H. Williams Oil Co., Inc.	87	1	35	1	35	0
The Wills Group, Inc.	80	3	50	—	47	[illegible]
Wooten Oil Co.	33	2	10	—	10	[illegible]
World Oil Co.	62	1	62	—	11	[illegible]
York Oil Co., Inc.	12	1	12	—	—	12

				BRANDED JOBBERS/COMMISSIONED AGENTS			
					Number selling . . .		
Commission-operated	Full-service Only	Self-service Only	Self-service/ Full-service	Total	Gasoline Only	Fuel oil Only	Gasoline/ Fuel Oil
—	1	—	10	—	—	—	—
9	2,069	5,537	2,149	1,264	34	2	1,229
1	1	5	20	0	—	—	—
—	—	—	—	—	—	—	—
—	—	—	10	—	—	—	—
16	—	18	1	0	—	—	—
—	10	—	2	0	—	—	—
—	—	1	—	0	—	—	—
0	196	—	—	64	62	59	58
14	4	40	50	0	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	0	—	—	—
—	—	313	—	0	—	—	—
—	8	31	6	36	36	—	—
—	2	—	4	3	—	—	3
—	12	—	—	—	—	—	—
—	—	—	—	1	1	—	—
—	—	—	—	0	—	—	—
—	—	4	—	0	—	—	—
—	3	1	—	0	—	—	—
84	—	56	28	—	74	—	10
8	—	7	46	—	—	—	—
—	2	—	8	—	—	—	—
—	—	24	—	0	—	—	—
—	4	16	—	—	—	—	—
—	—	—	2	0	—	—	—
—	2	—	4	1	1	—	—
—	—	5	7	1	—	—	1
—	1	—	3	—	—	—	—
—	4	9	8	—	—	—	—
—	—	7	—	—	—	—	—
—	—	20	—	—	20	—	—
—	20	—	—	—	—	—	—
—	231	1,661	2,673	448	—	—	—
18	28	—	—	0	—	—	—
49	59	76	10	0	—	—	—
—	—	8	—	0	—	—	—
—	12	1	5	0	—	—	—
6	—	4	1	0	—	—	—
—	37	6	12	0	—	—	—
—	—	10	40	0	—	—	—
1	3	—	1	—	—	—	—
—	2	—	3	1	1	—	—
—	5	—	15	—	—	—	—
40	80	120	40	5	—	2	3
75	—	75	—	75	75	—	—
—	—	—	—	3,933	—	—	—
—	—	—	—	—	—	—	—
56	—	65	—	0	—	—	—
—	—	21	—	—	—	—	—
67	2,630	5,287	5,259	1,161	344	—	207
—	—	18	—	—	—	—	—
—	3	18	7	1	—	—	1
—	4	96	2	0	—	—	—
—	—	—	—	—	—	—	—
—	—	9	—	0	—	—	—
435	249	1,829	427	478	127	0	351
—	—	15	—	—	18	—	5
11	37	—	—	—	11	—	—
1	3	4	—	—	—	—	—
—	149	144	—	—	—	—	—
—	100	3,660	7,146	715	—	—	—
—	0	15	0	0	—	—	—
—	4	11	—	—	—	—	—
—	1	5	32	0	—	—	—
—	1	6	86	—	—	—	1
—	28	169	66	—	—	—	—
—	—	—	15	1	—	—	—
1	10	15	16	0	—	—	—
—	—	123	—	4	—	—	4
—	—	88	—	0	—	—	—
1	0	0	36	1	—	—	1
—	[illegible]	—	60	25	21	[illegible]	—
—	6	4	—	—	—	—	—
[illegible]	—	62	—	48	48	[illegible]	—
—	—	12	—	—	—	2	—

BULK PLANTS				TERMINALS				
	Company-operated				Company-operated			
Total	Salary-operated	Commission-operated	Jobber-operated Bulk Plants	Total	Salary-operated	Commission-operated	Jobber-operated Terminals	Company
2	—	—	—	0	—	—	—	Pathway Oil Co.
1	0	1	—	30	30	0	4	Phillips 66 Co.
1	1	—	—	0	—	—	—	Plaza Motor Fuels Inc.
—	—	—	5	—	—	—	1	JW Pierson Co.
—	—	—	—	—	—	—	—	Pride of Texas Dist. Co.
0	—	—	—	0	—	—	—	Pride Oil Co., Inc. (Miss.)
0	—	—	—	0	—	—	—	Pride Oil Co., Inc. (Texas)
0	—	—	—	0	—	—	—	Private Brand Services Inc.
1	—	—	1	0	—	—	—	Quaker State
4	4	—	0	0	—	—	0	Quality Oil Corp Inc., Limited Partnersnip
—	—	—	—	—	—	—	—	Quarles Petroleum
—	—	—	—	—	—	—	—	Quiktrip Corp.
0	—	—	—	0	—	—	—	Racetrac Petroleum, Inc.
0	—	—	—	0	—	—	—	RECO Petroleum, Inc.
0	—	—	—	0	—	—	—	Red Hed Oil Co., Inc.
—	—	—	—	—	—	—	—	Reinauer Petroleum Co.
5	—	—	5	—	—	—	—	Reinhardt Corp.
0	—	—	—	0	—	—	—	Remote Services, Inc.
0	—	—	—	0	—	—	—	Republic Oil Corp.
0	—	—	—	0	—	—	—	Reynolds Industries, Inc.
—	—	—	—	—	—	—	—	Rich Oil Inc.
2	2	—	—	—	—	—	—	River Oil Co.
1	1	—	—	—	—	—	—	Roach Oil Co.
0	—	—	—	0	—	—	—	Robinson Oil Co., Inc.
3	3	—	—	—	—	—	—	Royster Oil Co., Inc.
1	1	—	—	0	—	—	—	Russell Petroleum Corp.
2	—	2	—	0	—	—	—	Sahara Oil Co., Inc.
3	3	—	—	—	—	—	—	Santee Oil Co., Inc.
—	—	—	—	—	—	—	—	SATCO
5	—	—	—	—	—	—	—	SCASCO
—	—	—	—	—	—	—	—	Schaeffer Oil, Inc.
—	—	—	1	—	—	—	—	Shay Oil Co., Inc.
—	—	—	—	—	—	—	—	Shelby Petroleum Corp.
0	—	—	563	109	74	35	—	Shell Oil Co.
1	1	—	—	0	—	—	—	Shotmeyer Bros. Petrolsum Corp.
12	12	—	0	1	1	—	0	SICO Co.
0	—	—	—	2	2	0	0	Sigg Oil Co.
0	—	—	—	0	—	—	—	R.L. Smeltz Oil Co., Inc.
0	—	—	—	0	—	—	—	Smith-Shafer Oil Co.
1	1	—	—	0	—	—	—	SOS Oil Corp.
3	3	—	—	0	—	—	—	Southern Counties Oil Co.
—	—	—	—	—	—	—	—	Southern Oil Co., Inc.
0	—	—	—	—	—	—	—	The Spencer Companies, Inc.
—	—	—	—	—	—	—	—	Stevens Oil Co.
11	8	—	3	3	3	—	—	Sugarcreek Corp.
0	—	—	—	—	—	—	—	Sumrall Oil Services, Inc.
—	—	—	—	37	—	—	—	Sun Refining & Marketing Co.
—	—	—	—	—	—	—	—	Sunshine Jr. Stores, Inc.
0	—	—	—	2	2	—	0	Tartan Oil Corp.
—	—	—	—	—	—	—	—	Taylor Oil Co.
696	20	—	676	68	65	—	3	Texaco Inc.
—	—	—	—	—	—	—	—	Texas Star Oil Co.
4	4	—	—	0	—	—	—	Thornhill Oil Co., Inc.
0	—	—	—	0	—	—	—	Thornton Oil Corp.
—	—	—	—	—	—	—	—	Time Saver Stores
0	—	—	—	0	—	—	—	Tooley Oil Co.
180	2	0	178	10	10	—	1	Total Petroleum, Inc.
—	—	—	—	—	—	—	—	Transit Oil Co.
—	—	—	—	—	—	—	—	Trenton Oil Co., Inc.
—	—	—	—	—	—	—	—	Ultra Power Corp.
—	—	—	—	1	1	—	—	United Refining Co.
698	35	154	509	56	—	—	—	Unocal Corp.
0	—	—	—	1	—	—	—	Vista Marketing Group Ltd.
—	—	—	—	—	—	—	—	Waco Oil Co., Inc.
0	—	—	—	0	—	—	—	Wake Up Oil Co., Inc.
0	—	—	—	0	—	—	—	Warelubco, Inc.
6	6	—	—	1	1	—	—	Warner Equities, Inc.
2	2	—	—	—	—	—	—	Webster Oil Co.
1	1	—	—	0	—	—	—	Wesson, Inc.
4	—	—	—	0	—	—	—	Western Marketing, Inc.
4	4	—	—	0	—	—	—	A.T. Williams Oil Co.
4	3	1	—	—	—	—	—	J.H. Williams Oil Co., Inc.
12	11	1	—	1	1	—	—	The Wills Group, Inc.
—	1	1	—	0	—	—	—	Wooten Oil Co.
3	3	—	—	3	3	—	—	World Oil Co.
—	2	—	—	—	1	—	—	York Oil Co., Inc.

Branded Retail Outlets

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	New England						Middle Atlantic		
			Maine	N.H.	Vt.	Mass.	R.I.	Conn.	N.Y.	N.J.	Pa.
Advanced Oil Co.	20	2	—	—	—	—	—	—	11	[illegible]	—
Agway Petroleum Corp.	232	9	7	7	7	12	1	3	[illegible]	12	[illegible]
American Petrofina, Inc.	3,458	24	—	—	—	—	—	—	[illegible]	—	[illegible]
American Refining Group, Inc.	8	1	—	—	—	—	—	—	—	—	8
Amoco Corp.	10,246	30	—	—	—	—	—	46	320	322	431
Ashland Oil, Inc.	2,110	19	—	—	—	—	—	—	—	—	34
Atlantic Refining & Marketing Corp.	1,091	6	—	—	8	—	—	—	317	[illegible]	[illegible]
Automatic Comfort Corp.	49	1	—	—	—	—	—	49	—	—	[illegible]
[illegible] Enterprises	36	1	—	—	—	—	—	—	—	—	[illegible]
BP America (Ohio)	7,413	28	15	47	60	88	0	61	0	116	404
Bagwell Oil Co., Inc.	30	2	—	—	—	—	—	—	—	—	—
E M Bailey	60	3	—	—	—	—	—	—	—	—	—
Bedford Valley Petroleum Corp.	66	3	—	—	—	—	—	—	[illegible]	—	[illegible]
Bell Fuel Corp.	5	2	—	—	—	—	—	—	—	4	[illegible]
Best Oil Co.	16	1	—	—	—	—	—	—	—	—	[illegible]
Bostick Brothers, Inc.	6	1	—	—	—	—	—	—	—	—	—
Bray Terminals, Inc.	75	—	—	—	5	—	—	—	70	—	—
Browning Oil Co.	28	1	—	—	—	—	—	—	—	—	—
Buhrmaster Energy Group	2	1	—	—	—	—	—	—	2	—	[illegible]
Dennis K. Burke, Inc.	1	1	—	—	—	1	—	—	—	—	[illegible]
Campbell Oil Co.	83	1	—	—	—	—	—	—	—	—	[illegible]
Cannon Oil Corp.	17	3	—	—	—	—	—	—	—	—	—
Cel Oil Products Corp.	13	1	—	—	—	—	—	—	—	—	—
CENEX	972	14	—	—	—	—	—	—	—	—	—
Center Independent Oil Co.	20	1	—	—	—	—	—	—	—	—	[illegible]
Certified Oil Co.	175	3	—	—	—	—	—	—	—	—	[illegible]
Champlain Oil Co.	102	4	—	10	56	1	—	—	[illegible]	—	[illegible]
Chaney Oil Company of Vicksburg Inc.	16	1	—	—	—	—	—	—	—	—	—
Chevron Corp.*	11,969	34	—	—	—	—	—	—	—	—	2
Circle K. Corp.	847	22	1	—	—	4	—	2	—	—	—
CITGO	7,097	40	141	128	74	[illegible]	43	[illegible]	[illegible]	[illegible]	[illegible]
Clark Oil & Refining Corp.	946	12	—	—	—	—	—	—	—	[illegible]	[illegible]
Coastal Corporation	650	22	—	—	—	2	—	—	—	[illegible]	[illegible]
Colonial Oil Industries, Inc.	62	3	—	—	—	—	—	—	—	—	—
Como Oil Co.	95	3	—	—	—	—	—	—	—	—	—
Conoco Inc.	4,843	37	—	—	—	—	—	—	—	—	—
Consumers Gasoline Stations Inc.	29	—	—	—	—	—	—	—	—	—	[illegible]
Consumers Oil	46	2	—	—	—	—	—	[illegible]	—	40	[illegible]
Crown Central Petroleum Corp.	730	8	—	—	—	—	—	—	—	—	[illegible]
Crystal Flash Petroleum Corp.	25	1	—	—	—	—	—	—	—	—	—
C.S.C. Oil Co.	13	2	—	—	—	—	—	—	—	—	—
Dairy Mart Convenience Stores Inc.	429	15	—	4	—	14	3	28	13	—	2
H.E. Davis, Ltd.	5	1	—	—	—	—	—	—	—	—	[illegible]
DeBlois Oil Co.	41	2	—	—	—	12	29	—	—	—	[illegible]
Delta Group USA Inc.	40	2	—	—	—	—	—	—	—	—	[illegible]
Drakes Refinery Stations	5	1	—	—	—	—	—	—	—	—	—
East Coast Oil Corp.	40	1	—	—	—	—	—	—	—	—	—
Emro Marketing Co.	1,376	18	—	—	—	—	—	—	—	—	—
Englefield Oil Co.	245	2	—	—	—	—	—	—	—	—	[illegible]
Exxon Company U.S.A.	12,456	37	199	82	—	141	13	[illegible]	[illegible]	[illegible]	[illegible]
Farm & Home Oil Co.	40	2	—	—	—	—	—	—	—	[illegible]	[illegible]
Fleetman, Inc. dba Fuelman	86	3	—	—	—	—	—	—	—	—	—
Foster Oil Co.	70	1	—	—	—	—	—	—	—	—	—
H.N. Funkhouser & Co.	15	1	—	—	—	—	—	—	—	—	—
Getty Petroleum Corp.	—	—	—	—	—	—	—	—	—	—	[illegible]
Global Petroleum Corp.	137	9	—	—	—	27	1	1	—	[illegible]	[illegible]
Godwin Oil Co.	15	1	—	—	—	—	—	—	—	—	[illegible]
Gresham Petroleum Co.	30	—	—	—	—	—	—	—	—	—	—
Gulf Oil	4,463	12	203	188	124	644	110	353	832	772	877
Highway Oil, Inc.	212	22	—	2	2	—	—	—	23	—	19
Angus I. Hines, Inc.	55	3	—	—	—	—	—	—	—	—	[illegible]
Holland Oil Co.	80	1	—	—	—	—	—	—	—	—	[illegible]
Hop-In Food Stores	151	4	—	—	—	—	—	—	—	—	[illegible]
Huck's Convenience Stores	95	4	—	—	—	—	—	—	—	—	—
Hugh's Energy Inc.	40	1	—	—	—	—	—	—	—	—	—
Hull Oil Co.	28	2	—	—	—	—	—	—	—	—	—
Hunt Refining Co.	130	2	—	—	—	—	—	—	—	—	[illegible]
Huntley Jiffy Stores Inc.	80	2	—	—	—	—	—	—	—	—	[illegible]
Jacobus Petroleum Products, Inc.	39	1	—	—	—	—	—	—	—	—	[illegible]
Jiffy Stop, Inc.	11	1	—	—	—	—	—	—	—	—	—
J & L Oil, Inc.	58	3	—	—	—	—	—	—	—	—	—
Johnson Products, Inc.	65	6	27	22	5	2	1	—	7	—	—
Kelley Williamson Co.	35	2	—	—	—	—	—	—	—	—	[illegible]
Kerr-McGee Refining Corp.	1,341	21	—	—	—	—	—	—	—	—	[illegible]

*Excludes Airport & Marine Outlets/New Car Dealerships

in the United States

South Atlantic									East North Central					East South Central			
Del.	Md.	D.C.	Va.	W.Va.	N.C.	S.C.	Ga.	Fla.	Ohio	Ind.	Ill.	Mich.	Wis.	Ky.	Tenn.	Ala.	Miss.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	13	—	56	163	364	386	—	—	4	—	—	7	132	127	23
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16	253	44	366	—	650	294	623	678	324	377	962	576	440	—	610	275	196
—	—	—	34	369	—	—	—	25	406	45	23	23	74	924	1	—	—
10	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	36	—	—
23	25	0	229	81	764	428	886	529	1.154	30	2	284	0	506	693	538	440
—	1	—	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	16	—	—	11	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	28	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	83	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	13	—
—	—	—	—	—	—	13	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	5	175	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	12	—	—	—	—	168	—	—	—	—	5	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16
—	160	17	516	231	198	111	793	749	29	12	1	—	—	732	98	764	362
—	—	—	—	—	52	35	170	48	2	1	—	1	—	—	22	25	20
17	129	2	506	60	226	58	280	687	86	52	171	83	252	41	210	328	112
—	—	—	—	3	—	—	—	—	198	115	240	161	93	21	—	—	—
—	—	—	39	3	7	2	12	62	—	—	33	—	—	11	22	—	—
—	—	—	—	—	6	23	33	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13	—	—	27	6	35	24	48	40	23	3	46	3	53	11	65	37	65
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	96	—	45	—	203	169	96	24	—	—	—	—	—	—	—	71	—
—	—	—	—	—	—	—	—	—	—	25	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	7	—	—	—	—	6	—	—	—
—	—	—	—	—	17	—	—	19	103	21	26	1	—	160	17	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	3	—	37	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	5	—	—	—	—	—
—	—	—	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	5	41	77	5	82	407	158	145	174	59	62	11	13	21
—	—	—	—	28	—	—	—	—	217	—	—	—	—	—	—	—	—
46	354	44	731	361	1,106	617	396	462	11	—	—	—	—	—	615	326	182
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26
—	—	—	—	—	—	—	—	—	—	—	—	70	—	—	—	—	—
—	—	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	2	—	6	4	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	15	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30
80	10	—	—	—	—	—	—	—	270	—	—	—	—	—	—	—	—
—	5	—	—	5	—	—	2	28	35	9	—	3	—	8	7	2	2
—	—	—	53	1	1	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	60	—	—	—	—	—	—	—	—
—	—	—	82	—	32	—	—	—	—	—	—	46	—	—	12	—	—
—	—	—	—	—	—	—	—	—	—	2	90	—	—	2	1	—	—
—	—	—	—	—	—	—	—	40	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	27	—	—	—	—	—	—	—	1	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60	40
—	—	—	—	—	—	—	10	50	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	38	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—	—	—
—	—	—	—	—	—	—	5	—	—	41	—	—	12	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	31	—	4	—	—	—	—
—	—	—	1	—	—	—	—	7	—	31	[illegible]	—	[illegible]	4	17	[illegible]	[illegible]

Branded Retail Outlets (cont'd)

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	New England						Middle Atlantic		
			Maine	N.H.	Vt.	Mass	R.I.	Conn.	N.Y.	N.J.	Pa.
Kimber Petroleum Corp.	69	1	–	–	–	–	–	–	–	69	–
Kimbro Oil Co.	60	1	–	–	–	–	–	–	–	–	–
Kwik Shop Inc.	34	2	–	–	–	–	–	–	–	–	–
Kirschner Bros. Oil Co.	10	3	–	–	–	–	–	–	–	2	5
Lakeside Oil Co., Inc.	111	1	–	–	–	–	–	–	–	–	–
H.C. Lewis Oil Co.	30	1	–	–	–	–	–	–	–	–	–
The Lyden Company	170	1	–	–	–	–	–	–	–	–	–
Marathon Petroleum Co.	2,527	8	–	–	–	–	–	–	–	–	10
Martin Oil Marketing, Ltd.	43	2	–	–	–	–	–	–	–	–	–
Mauger & Co.	41	1	–	–	–	–	–	–	–	–	41
McDowell Oil Service Inc.	29	1	–	–	–	–	–	–	–	–	29
McLeieer Oil, Inc.	65	1	–	–	–	–	–	–	–	–	–
Mid-Continent Systems Inc.	34	4	–	–	–	–	–	–	–	–	–
Mid-States Petroleum	121	–	–	–	–	–	–	–	–	–	–
Midwest Petroleum Co.	127	2	–	–	–	–	–	–	–	–	–
Miller Enterprises, Inc.	86	–	–	–	–	–	–	–	–	–	–
Miller Oil Co.	100	2	–	–	–	–	–	–	–	–	–
Mobil Oil Corp.	11,074	36	240	158	166	566	73	351	1,442	472	686
Munro Petroleum & Terminal Corp.	32	1	–	–	–	–	–	–	–	–	–
Murphy Oil USA, Inc.	663	14	–	–	–	–	–	–	–	–	–
National Oil & Gas Inc.	91	2	–	–	–	–	–	–	–	–	–
National Oil Co.	371	14	–	–	–	–	–	–	–	–	–
Northville Industries Corp.	110	2	–	–	–	–	–	–	92	11	–
Pal Oil Company Inc.	64	2	–	–	2	–	–	–	62	–	–
Parker Oil Co., Inc.	160	3	–	–	–	–	–	–	–	–	–
Patterson Oil Co., Inc.	36	1	–	–	–	–	–	36	–	–	–
PDQ Food Stores, Inc.	[illegible]	4	–	–	–	–	–	–	–	–	–
Pennzoil Products Co.	543	8	–	–	–	–	–	–	12	–	155
Petroleum Marketers, Inc.	157	2	–	–	–	–	–	–	–	–	–
Pettway Oil Co.	45	–	–	–	–	–	–	–	–	–	–
Phillips 66 Co.	9,757	33	–	–	–	–	–	–	–	–	–
Piasa Motor Fuels Inc.	26	2	–	–	–	–	–	–	–	–	–
J. W. Pierson Co.	1	–	–	–	–	–	–	–	–	1	–
Pride Oil Co. (Miss.)	19	2	–	–	–	–	–	–	–	–	–
Pride Oil Co., Inc. (Tenn.)	12	1	–	–	–	–	–	–	–	–	–
Private Brand Services, Inc.	1	1	–	–	–	–	–	–	–	–	–
Quaker State Corp.	105	4	–	–	–	–	–	–	36	–	[illegible]
Quality Oil Co. Inc., Ltd. Partnership	100	2	–	–	–	–	–	–	–	–	–
Quarles Petroleum	75	1	–	–	–	–	–	–	–	–	–
Quiktrip Corp.	243	5	–	–	–	–	–	–	–	–	–
Racetrac Petroleum, Inc.	313	13	–	–	–	–	–	–	–	–	–
RECO Petroleum, Inc.	111	3	–	–	–	–	–	–	–	–	75
Red Hed Oil Co., Inc.	38	1	–	–	–	–	–	–	–	–	–
Reinauer Petroleum Co.	14	1	–	–	–	–	–	–	–	14	–
Reinhardt Corp.	26	1	–	–	–	–	–	–	26	–	–
Remote Services, Inc.	278	9	–	4	–	–	–	–	13	–	–
Reynolds Industries, Inc.	4	2	2	–	–	2	–	–	–	–	–
Rich Oil	84	–	–	–	–	–	–	–	–	–	–
River Oil Co.	53	2	–	–	–	–	–	–	–	–	–
Roach Oil Co.	10	–	–	–	–	–	–	–	–	–	–
Royster Oil Co., Inc.	41	1	–	–	–	–	–	–	–	–	–
Russell Petroleum Corp.	48	1	–	–	–	–	–	–	–	–	–
Santee Oil Co.	15	1	–	–	–	–	–	–	–	–	–
SATCO	30	2	26	4	–	–	–	–	–	–	–
Save-X USA, Inc.	14	2	–	–	–	–	–	–	–	–	–
SCASO	40	1	–	–	–	–	–	40	–	–	–
Shelby Petroleum Corp.	20	2	–	–	–	–	–	–	–	–	–
Shell Oil Co.	10,847	41	0	12	0	228	55	141	257	282	89
Shotmeyer Bros. Petroleum Corp.	32	1	–	–	–	–	–	–	–	32	–
SICO	145	3	–	–	–	–	–	–	–	41	102
SING Oil Co.	8	1	–	–	–	–	–	–	–	–	[illegible]
R.L. Smeltz Oil Co. Inc.	10	1	–	–	–	–	–	–	–	–	[illegible]
Smith-[illegible] Oil Co.	5	1	–	–	–	–	–	–	–	–	[illegible]
SOS Oil Corp.	55	1	–	–	–	–	–	–	55	–	–
Southern Oil Co., Inc.	8	1	–	–	–	–	–	–	–	–	–
Southern States Co-Op	120	6	–	–	–	–	–	–	–	–	–
The Spencer Co., Inc.	56	1	–	–	–	–	–	–	–	–	–
Stevens Oil Co.	50	1	–	–	–	–	–	–	–	–	[illegible]
Sugarcreek Corp.	280	2	–	–	–	–	–	–	[illegible]	–	[illegible]
Sumrall Oil Services, Inc.	75	1	–	–	–	–	–	–	–	–	–
Sun Refining & Marketing Co.	7,058	28	62	101	50	391	109	235	1,321	446	1,517
Sunshine Jr. Stores, Inc.	311	–	–	–	–	–	–	–	–	–	–

South Atlantic									East North Central					East South Central			
Del.	Md.	D.C.	Va.	W.Va.	N.C.	S.C.	Ga.	Fla.	Ohio	Ind.	Ill.	Mich.	Wis.	Ky.	Tenn.	Ala.	Miss.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60	—	—
—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	—	—	—
—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	111	—	—	—	—
—	—	—	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	170	—	—	—	—	—	—	—	—
—	—	—	—	14	—	—	—	—	863	523	370	560	31	176	—	—	—
—	—	—	—	—	—	—	—	—	—	18	25	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	65	—	—	—	—	—
—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	2	30	—
—	—	—	—	—	—	—	—	—	18	20	—	83	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	25	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	49	—	51	—	—	—	—	—	—	—	—	—	—	—	—
58	130	1	141	54	174	0	15	436	292	164	441	521	528	58	131	20	0
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32
—	—	—	14	—	55	18	54	96	—	—	—	5	102	11	70	16	24
—	—	—	—	—	—	—	—	—	4	87	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	8	18	2	—	—	7	24	16
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	1	—	156	—	3	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	20	—	—	—	—
—	—	—	1	114	—	—	—	—	221	4	—	12	—	24	—	—	—
—	—	—	147	10	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	43	—	—
—	7	—	60	29	673	320	404	542	—	350	553	79	250	107	326	370	180
—	—	—	—	—	—	—	—	—	—	—	24	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
—	—	—	—	35	—	—	—	—	63	—	—	—	—	—	—	—	—
—	—	—	3	—	97	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	75	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	1	—	22	—	4	12	47	36	—	—	—	—	—	3	39	104	7
—	—	—	24	12	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	36	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	17	—	—	19	—	21	26	—	—	160	17	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	22	—	—	—	—	40	—	—	—	—	22	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60	—	3
—	3	—	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	41	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48	—
—	—	—	—	—	—	15	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	11	—	3	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	18	—	—
40	242	9	325	11	418	223	373	658	466	336	655	657	198	288	326	407	280
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	8	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	[illegible]	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75
24	103	7	23	87	79	8	—	—	551	197	289	441	4	79	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Branded Retail Outlets (cont'd)

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	New England						Middle Atlantic		
			Maine	N.H.	Vt.	Mass.	R.I.	Conn.	N.Y.	N.J.	Pa.
Taylor Oil Co.	55	2	—	—	—	—	—	—	—	—	—
TCR Inc.	21	—	—	—	—	—	—	—	—	—	—
Texaco Inc.	15,369	45	172	301	94	392	61	273	307	319	[illegible]
Thornhill Oil Co., Inc.	28	1	—	—	—	—	—	—	—	—	—
Thornton Oil Corp.	102	7	—	—	—	—	—	4	5	—	—
Total Petroleum, Inc.	509	20	—	—	—	—	—	—	—	—	—
Transit Oil Co.	43	—	—	—	—	—	—	—	—	—	—
Trenton Oil Co., Inc.	37	1	—	—	—	—	—	—	—	37	—
Ultra Power Corp.	7	1	—	—	—	—	—	—	7	—	—
United Refining Co.	294	3	—	—	—	—	—	—	148	—	129
Unocal Corp.	10,926	43	—	—	—	—	—	2	2	2	39
Vista Marketing Group Ltd.	15	4	—	—	—	—	—	—	—	—	—
Waco Oil Co., Inc.	15	2	—	—	—	—	—	—	—	—	—
Wake Up Oil Co., Inc.	36	1	—	—	—	—	—	—	—	—	—
Warelubco, Inc.	93	5	—	—	—	—	—	—	—	—	—
Warren Equities, Inc.	283	8	9	8	—	65	56	57	41	31	16
WAVAHO Oil Co.	25	1	—	—	—	—	—	—	—	—	—
Wesson, Inc.	40	1	—	—	—	—	—	40	—	—	—
A.T. Williams Oil Co.	88	2	—	—	—	—	—	—	—	—	—
J.H. Williams Oil Co., Inc.	87	1	—	—	—	—	—	—	—	—	—
The Wills Group, Inc.	80	3	—	—	—	—	—	—	—	—	—
Wooten	33	2	—	—	—	—	—	—	—	—	—
York Oil Co., Inc.	12	1	—	—	—	—	—	—	—	—	—

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	West North Central						
			Minn.	Iowa	Mo.	N.D.	S.D.	Neb.	Ka
Ada Resources & Energy, Inc.	97	1	—	—	—	—	—	—	
American Petrofina, Inc.	3,456	24	73	36	135	3	24	30	[illegible]
Amoco Corp.	10,248	30	504	433	451	[illegible]	[illegible]	[illegible]	[illegible]
Anchor Gasoline Corp.	61	1	—	—	—	—	—	—	
Arco Products Company	1,673	5	—	—	—	—	—	—	
Ashland Oil, Inc.	2,110	19	109	8	3	1	5	—	
BP America (Ohio)	7,413	28	—	—	—	—	—	—	
Beacon Oil Co.	360	2	—	—	—	—	—	—	
Brennan Petroleum Co.	1	1	—	—	—	—	—	—	
Cardon Corp.	50	1	—	—	—	—	—	—	
Cenex	972	14	215	50	—	150	107	44	
Chapman, Inc.	32	1	—	—	—	—	—	—	
Chevron Corp.*	11,969	34	—	—	[illegible]	—	—	—	
W.R. Childress Oil Co. Inc.	56	1	—	—	—	—	—	—	
Circle K Corp.	647	22	—	—	—	—	—	—	
Citgo Petroleum Corp.	7,697	40	42	40	160	0	0	0	[illegible]
Clark Oil & Refining Corp.	946	12	21	7	51	—	—	—	11
The Coastal Corp.	850	22	8	107	108	—	6	54	210
Conoco Inc.	4,843	37	137	[illegible]	[illegible]	[illegible]	44	190	[illegible]
Cook & Cooley, Inc.	70	1	—	—	—	—	—	—	—
Crockett Oil Co.	20	4	—	—	14	—	—	—	[illegible]
Curt's Oil Co.	22	5	—	—	—	—	—	—	
Curtis Parker Oil Co. Inc.	22	1	—	—	—	—	—	—	
Dairy Mart Convenience Stores, Inc.	429	15	—	1	—	—	—	—	
Diamond Shamrock Refining & Marketing Co.	1,973	5	—	—	5	—	—	—	
Dickey Inc.	5	1	—	5	—	[illegible]	—	—	
Emro Marketing Co.	1,375	18	—	—	—	—	—	—	
Exxon Co., U.S.A.	12,456	37	—	—	—	—	11	—	
Fas-Stop, Inc.	4	1	—	—	—	—	—	—	

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*Excludes Airport & Marina Outlets—New Car Dealerships.

South Atlantic									East North Central					East South Central			
Del.	Md.	D.C.	Va.	W.Va.	N.C.	S.C.	Ga.	Fla.	Ohio	Ind.	Ill.	Mich.	Wis.	Ky.	Tenn.	Ala.	Miss.
—	—	—	10	—	45	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	—
73	237	8	582	38	991	495	596	672	—	—	37	—	—	57	426	605	419
—	—	—	—	—	—	—	—	—	—	28	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	11	14	15	—	—	45	—	—	—
—	—	—	—	—	—	—	—	—	9	2	34	470	77	1	19	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	17	—	—	—	—	—	—	—	—
—	7	—	354	167	735	260	579	691	710	469	544	696	443	221	388	716	332
—	—	—	—	—	—	—	—	—	—	—	4	—	6	—	—	—	—
—	—	—	—	—	—	—	—	—	5	—	—	—	—	10	—	—	—
—	—	—	—	—	—	—	—	—	—	38	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	8	—	3	64	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	38	—	60	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	87	—	—	—	—	—	—	—	—	—
4	74	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	32	1	—	—	—	—	—	—	—	—	—	—	—
—	—	—	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—

West South Central				Mountain								Pacific				
Ark.	La.	Okla.	Texas	Mont.	Idaho	Wyo.	Colo.	N.M.	Ariz.	Utah	Nev.	Wash.	Ore.	Calif.	Alaska	Hawaii
—	—	—	97	—	—	—	—	—	—	—	—	—	—	—	—	—
111	121	183	1,147	—	—	—	7	147	5	—	—	—	—	—	—	—
—	—	—	—	—	18	61	198	—	—	—	—	—	—	—	—	—
—	61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	66	—	69	268	164	1,106	—	—
—	—	—	—	22	—	1	—	—	—	—	—	3	—	—	—	—
1	—	1	2	—	—	—	—	3	—	—	—	—	—	2	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	2	348	—	—
—	—	—	—	—	—	—	—	—	50	—	—	—	—	—	—	—
—	—	—	—	69	43	8	—	—	—	6	—	59	35	—	—	—
—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
—	—	—	32	—	—	—	—	—	—	—	—	—	—	—	—	—
[illegible]	536	214	2,270	66	132	35	101	231	192	131	66	443	299	1,740	125	143
—	—	—	55	—	—	—	—	—	—	—	—	—	—	—	—	—
3	104	81	140	—	—	—	—	41	—	12	—	7	—	2	—	4
187	182	274	1,055	0	0	0	193	21	2	127	0	0	0	1	0	0
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1	—	33	42	—	—	3	22	—	—	—	—	—	—	—	—	—
[illegible]	535	444	740	281	40	60	409	137	12	126	7	87	—	62	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	—	—
1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	2	12	1	—	—	—	—	—	—	—	—	—	—	—	—	—
—	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
96	32	80	1,516	—	—	—	153	92	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1	[illegible]	1	7	—	—	—	—	—	—	—	—	—	—	—	—	—
351	534	2	2,414	218	36	24	49	115	263	20	29	229	94	804	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Branded Retail Outlets (cont'd.)

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	West North Central						
			Minn.	Iowa	Mo.	N.D.	S.D.	Neb.	Kan.
Fleetman Inc. dba Fuelman	86	3	—	—	—	—	—	—	—
Fleischli Oil Co.	5	1	—	—	—	—	—	—	—
F.O. Fletcher Oil, Inc. dba Fletcher Oil Co.	16	3	—	—	—	—	—	—	—
Flying J Inc.	90	13	—	1	1	8	—	—	—
Franko Oil Co	49	2	—	—	—	—	—	—	—
Gasco Gasoline, Inc.	56	1	—	—	—	—	—	—	—
General Oil Co.	36	1	—	—	—	—	—	—	—
Giant Industries, Inc.	21	3	—	—	—	—	—	—	—
Jack Griffith Petroleum	12	—	—	—	—	—	—	—	—
Gull Industries Inc	125	2	—	—	—	—	—	—	—
Harris Enterprises Inc.	22	2	—	—	—	—	—	—	—
Hawaiian Independent Refinery Inc.	21	1	—	—	—	—	—	—	—
Highland Petroleum Inc.	9	5	—	—	—	—	1	3	—
Highway Oil, Inc.	212	22	—	1	13	—	4	—	[illegible]
Barney Holland Oil Co.	80	1	—	—	—	—	—	—	—
Horn Distributing Co., Inc.	41	1	—	—	—	—	—	—	—
Hudson Farms Corp.	11	2	—	—	—	—	—	—	—
JS&J Service Inc.	4	—	—	—	—	—	—	—	—
Kellett Oil Co.	10	1	—	—	10	—	—	—	—
Kent Distributors, Inc.	8	1	—	—	—	—	—	—	—
Kerr-McGee Refining Corp.	1,941	21	30	141	151	8	53	107	[illegible]
Kunz Oil Co.	29	1	29	—	—	—	—	—	—
Kwik Shop, Inc.	34	2	—	24	—	—	—	—	—
McCall Oil Co.	1	1	—	—	—	—	—	—	—
Merchants Oil Co.	—	—	—	—	—	—	—	—	—
Merritt Truax, Inc.	40	1	—	—	—	—	—	—	—
Mid-Missouri Oil Co.	15	1	—	—	15	—	—	—	—
Midwest Petroleum Co.	127	2	—	—	102	—	—	—	—
Mini Mart Inc.	117	6	—	—	—	21	9	4	—
Missouri Terminal Oil Co.	35	2	—	—	33	—	—	—	—
Mobil Oil Corp.	11,074	38	325	0	93	25	0	0	0
Murphy Oil USA, Inc.	663	14	63	—	—	—	—	—	—
Muskat Corp.	118	—	—	—	—	—	—	—	[illegible]
National Oil Co.	371	14	—	14	3	—	—	8	7
Neal, Inc.	28	1	—	—	—	—	—	—	—
Nella Oil Co.	29	—	—	—	—	—	—	—	—
Newell Oil Co.	18	1	—	—	—	—	—	—	—
Olympian Oil Co.	45	1	—	—	—	—	—	—	—
PDQ Food Stores, Inc.	69	4	16	—	—	—	—	—	—
Petrotex Marketing Inc.	23	1	—	—	—	—	—	—	—
Phillips 66 Co.	9,757	33	428	399	680	29	102	273	348
Piasa Motor Fuels Inc.	26	2	—	—	2	—	—	—	—
Promans, Inc.	17	1	—	—	—	—	—	—	—
Pride of Texas Dist. Co.	41	1	—	—	—	—	—	—	—
Quiktrip Corp.	243	5	—	48	58	—	—	—	[illegible]
Racetrac Petroleum, Inc.	313	13	—	—	—	—	—	—	—
Remote Services, Inc.	278	9	—	1	—	—	—	—	—
Republic Oil Corp.	4	1	—	—	—	—	—	—	—
Robinson Oil Co., Inc.	25	1	—	—	—	—	—	—	—
Sahara Oil Co., Inc.	22	1	—	—	—	—	—	—	—
Schaeffer Oil, Inc.	7	2	—	—	—	2	5	—	—
Shay Oil Co., Inc.	20	1	—	—	—	—	—	—	—
Shell Oil Co.	10,847	41	0	15	209	0	0	0	0
Southern Counties Oil Co.	50	1	—	—	—	—	—	—	—
Sun Refining & Marketing Co.	7,058	26	—	[illegible]	253	—	—	18	[illegible]
Sunshine Jr. Stores, Inc.	311	—	—	—	—	—	—	—	—
Texaco Inc.	15,369	45	[illegible]	243	385	—	102	[illegible]	[illegible]
Texas Star Oil Co.	18	1	—	—	—	—	—	—	—
Thornton Oil Corp.	102	7	—	—	—	—	—	—	—
Time Saver Stores	55	1	—	—	—	—	—	—	—
Tooley Oil Co.	9	1	—	—	—	—	—	—	—
Total Petroleum, Inc.	509	20	121	129	438	4	24	157	[illegible]
Unocal Corp.	16,926	43	308	107	37	2	12	12	[illegible]
Vista Marketing Group Ltd.	15	4	—	1	4	—	—	—	—
Warelubco, Inc.	93	5	—	16	2	—	—	—	—
Webster Oil Co.	32	1	—	—	32	—	—	—	—
Western Marketing, Inc.	137	1	—	—	—	—	—	—	—
World Oil Co.	[illegible]	1	—	—	—	—	—	—	—

West South Central				Mountain								Pacific				
Ark.	La.	Okla.	Texas	Mont.	Idaho	Wyo.	Colo.	N.M.	Ariz.	Utah	Nev.	Wash.	Ore.	Calif.	Alaska	Hawaii
—	50	—	10	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	5	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	2	—	—	—	—	—	—	3	11	—	—	—
—	—	—	1	—	5	2	3	1	3	15	—	14	4	13	—	—
—	—	—	—	—	—	—	—	—	—	—	—	9	40	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	56	—	—
38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	1	10	10	—	—	—	—	—	—	—
—	—	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	100	25	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	2	20	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21
1	—	2	—	—	—	—	2	—	—	—	—	—	—	—	—	—
—	—	—	12	—	—	4	3	—	—	—	—	—	—	—	—	—
—	—	—	90	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	41	—	—	—	—	—	—	—	—
—	—	10	1	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	1	—	—	—	—	3	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—
284	11	441	250	—	—	—	—	12	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	40	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	23	—	39	21	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0	361	0	920	0	0	0	0	0	240	0	10	245	289	1,265	1	0
6	49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	61	9	—	—	—	8	3	—	—	—	—	—	—	—	—
32	15	43	174	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	28	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	22	—	—
—	—	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	45	—	—
—	—	—	—	—	—	—	29	—	—	—	5	—	—	—	—	—
—	—	—	23	—	—	—	—	—	—	—	—	—	—	—	—	—
287	302	556	1,333	—	92	52	262	156	4	173	2	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17
—	—	—	41	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	12	—	23	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	18	—	—
—	—	—	—	—	—	—	—	—	22	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	20	—	—	—	—	—	—	—
91	523	24	674	0	53	0	14	101	52	24	39	264	264	1,460	0	64
—	—	—	—	—	—	—	—	—	—	—	—	—	—	50	—	—
33	—	401	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
[illegible]	[illegible]	467	1,875	—	75	87	288	147	205	210	88	448	[illegible]	[illegible]	[illegible]	[illegible]
—	—	—	18	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	8	—	—	—	—	—	—	—	—	—	—	—	—	—
—	55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
40	—	435	34	—	—	3	64	14	—	—	—	—	—	—	—	—
[illegible]	113	3	48	1	12	—	1	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	127	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	[illegible]	—	—

Average Number of Employees

(As of Jan. 1, 1988)

	Mining	Refining		Transportation		Wholesale	Retail	
	Oil and Gas Extraction	Petroleum Refining	Oils and Greases	Pipelines, Except Gas	Gas Distribution	Petroleum Products	Gasoline Stations	Total Industry
Alabama	1,312	423	100	83	3,123	5,116	7,951	18,108
Alaska	8,063	261	0	922	244	530	1,069	11,089
Arizona	105	N/A	N/A	122	1,866	1,311	8,662	12,066
Arkansas	2,576	N/A	N/A	N/A	2,154	2,795	5,330	12,855
California	32,282	24,007	863	1,184	11,455	14,999	63,918	148,708
Colorado	14,300	586	1,004	92	2,036	2,216	8,271	28,505
Connecticut	150	N/A	88	N/A	1,290	1,600	9,364	12,492
Delaware	0	772	9	4	316	268	1,475	2,844
D.C.	68	69	0	0	509	150	906	1,792
Florida	680	46	207	70	2,140	6,630	29,777	39,550
Georgia	71	94	137	466	4,161	5,829	17,508	28,266
Hawaii	N/A	432	0	0	343	591	3,615	4,981
Idaho	18	0	0	16	332	1,401	3,051	4,818
Illinois	3,799	8,074	271	891	7,865	9,408	25,922	56,230
Indiana	599	2,316	295	410	2,946	3,284	17,537	27,387
Iowa	29	0	53	154	1,265	3,155	12,256	16,912
Kansas	9,733	2,302	365	1,820	2,896	2,247	8,543	27,906
Kentucky	2,290	3,683	114	140	3,241	3,055	10,374	22,897
Louisiana	51,600	11,200	800	1,000	6,200	5,200	7,600	83,700
Maine	N/A	0	0	N/A	N/A	1,329	3,297	4,626
Maryland	35	N/A	N/A	0	N/A	2,675	13,450	16,160
Massachusetts	290	N/A	377	N/A	4,957	2,694	15,708	24,026
Michigan	4,216	1,615	781	279	6,811	5,829	23,367	42,898
Minnesota	N/A	N/A	157	194	2,257	2,580	16,606	21,794
Mississippi	5,359	1,534	112	0	2,124	2,964	5,905	17,998
Missouri	63	11	411	230	4,067	6,030	18,058	30,858
Montana	2,010	765	1	78	299	1,262	3,144	7,549
Nebraska	592	N/A	N/A	102	2,246	1,886	6,683	11,518
Nevada	222	26	0	20	738	453	3,831	5,296
New Hampshire	1	0	3	3	280	460	2,813	3,540
New Jersey	148	6,248	983	162	2,265	3,727	18,872	32,405
New Mexico	8,893	647	32	361	3,077	2,195	4,053	19,258
New York	1,785	5,673	407	124	6,716	8,845	28,076	51,626
North Carolina	5	N/A	224	121	2,665	5,905	10,888	19,808
North Dakota	2,601	221	147	158	1,045	2,210	2,390	8,772
Ohio	7,159	5,336	[illegible]	675	7,392	6,646	30,253	58,236
Oklahoma	43,438	6,636	439	1,375	5,293	4,299	7,090	68,569
Oregon	67	91	N/A	N/A	N/A	2,451	8,801	11,430
Pennsylvania	4,100	8,200	800	700	8,500	9,900	27,300	59,500
Rhode Island	7	N/A	N/A	N/A	991	409	2,383	3,700
South Carolina	31	0	N/A	N/A	574	3,737	7,685	12,027
South Dakota	100	0	0	64	126	1,528	2,606	4,424
Tennessee	351	338	128	42	1,824	5,225	11,892	19,800
Texas	171,253	29,665	1,147	4,708	26,710	23,101	34,045	290,629
Utah	1,903	778	11	79	2,307	1,376	5,080	11,534
Vermont	0	0	0	0	103	430	2,067	2,600
Virginia	N/A	N/A	56	N/A	3,012	8,336	15,482	26,884
Washington	191	1,571	N/A	79	N/A	2,892	10,347	14,880
West Virginia	4,298	435	114	97	4,837	1,495	4,844	16,120
Wisconsin	11	136	73	164	2,848	3,343	16,456	23,030
Wyoming	8,886	905	6	241	1,066	1,030	2,884	15,007
Total	385,690	125,095	11,499	17,436	160,271	196,925	610,492	1,517,408

Note: Data differ from the Bureau of Labor Statistics national averages to confidentiality rules.

Source: Various Government Agencies.

How Distillates Were Used in 1987

(Add 000 gal.)

Use	1987	1986	% Change	% Share of Total Distillates Use in 1987	% Share of Total Distillates Use in 1986
Residential	7,426,412	7,294,814	1.8%	16.3%	16.3%
Commercial	4,279,375	4,293,095	(.3)	9.4	9.6
Industrial	2,917,624	2,684,102	8.7	6.4	6.0
Oil Company	881,729	749,992	17.6	1.9	1.7
Farm	3,241,968	3,380,046	(4)	7.1	7.6
Elec. Utilities	646,073	614,361	5.2	1.4	1.4
Railroad	3,147,661	3,099,616	1.6	6.9	6.9
Vessel Bunkering	2,223,258	2,034,215	9.3	4.9	4.6
On-Highway Diesel	18,172,934	17,926,508	1.4	39.8	40.1
Military	884,392	760,417	16.3	1.9	1.7
Off-Highway Diesel	1,732,106	1,699,252	1.9	3.8	3.8
All other	75,816	140,161	(46.1)	.2	0.3
U.S. Total	45,629,346	44,677,080	2.1	—	—

Source: Energy Information Administration, Petroleum Marketing Monthly, June 1988.

How Residual Was Used in 1987

(Add 000 gal.)

Use	1987	1986	% Change	% Share of Total Residual Use in 1987	% Share of Total Residual Use in 1986
Commercial	1,764,531	1,663,005	6.1%	9.1%	7.6%
Industrial	3,810,345	4,492,393	(15.2)	19.7	20.7
Oil Company	502,615	766,034	(34.4)	2.6	3.5
Elec. Utilities	7,631,898	9,041,608	(15.6)	39.4	41.6
Railroad	294	569	(47.8)	—	—
Vessel Bunkering	5,259,272	5,287,347	(.5)	27.1	24.3
Military	191,045	180,918	5.6	1	0.8
All other	223,168	312,241	(28.5)	1.2	1.4
U.S. Total	19,383,168	21,744,114	(10.9)	—	—

Source: Energy Information Administration, Petroleum Marketing Monthly, June 1988.

How Kerosine Was Used in 1987

(Add 000 gal.)

Use	1987	1986	% Change	% Share of Total Kerosine Use in 1987	% Share of Total Kerosine Use in 1986
Residential	671,350	641,742	4.6%	46.3	44.6%
Commercial	267,437	307,704	(13.1)	18.5	20.4
Industrial	160,057	173,859	(7.9)	11	11.5
Farm	34,761	47,948	(27.5)	2.4	3.2
All other	315,900	334,906	(5.7)	21.8	22.2
U.S. Total	1,449,504	1,506,162	(3.8)	—	—

Source: Energy Information Administrations, Petroleum Marketing Monthly, June 1988.

How New Homes Are Heated

Region	New Homes Completed (Add 000)	Share of New Homes by Fuels and Percentages: Gas	Electric	Oil	Other
Northeast	187	45%	23%	30%	1%
Midwest	191	84	12	(*)	3
South	456	36	62	1	2
West	249	71	21	(*)	7
Total 1988	1,083	54	37	5	3
Total 1987	1,120	52	40	5	3

(*) Negligible

Source: Characteristics of New Housing 1988 (preliminary data).

Gas: Who Uses It for Heat

Region	% of Gas-Heated Homes to Total Gas-Using Homes	Consumers Added in 1987 (Add 000): New Homes	Existing Homes	Total Added
New England	69.5%	24.2	18.4	42.6
Mid-Atlantic	65.5	87.3	40.4	127.7
East North Central	94.6	128.7	31.8	160.5
West North Central	97.6	54.3	10.8	65.2
South Atlantic	89.3	79.3	22.9	102.2
East South Central	97.5	21.4	7.5	28.9
West South Central	92.0	23.1	1.7	24.8
Mountain	95.4	42.2	6.4	48.6
Pacific	93.9	264.3	14.4	278.8
Total	88.3	724.7	154.4	879.1
% Change '87 vs. '86	—	5.7%	4.0%	5.4%

Source: American Gas Assn., House Heating Survey 1987, Table #3.

Gas Heat Equipment Shipments

Class and Type of Equipment	1988	1987	% Change
Central Heating:			
Furnaces	2,092,165	2,072,925	.9%
Boilers	211,320	189,662	11.4
Space Heating:			
Wall Furnaces Vented	173,200	166,540	4.0
RV Systems	235,518	234,771	.3
Water Heaters:			
Gas	3,956,469	3,950,684	.1
Electric	3,333,490	3,396,395	(1.9)
Oil(a)	34,000	37,000	(8.8)

(a) Estimated by fuel oil industry sources for comparison.

Source: Gas Appliance Manufacturers Assn.

Distillate Deliveries in 1987...

(Add 000 gal.)

	Residential		Commercial		Industrial	
Destination	1987	1986	1987	1986	1987	1986
PAD District 1						
New England States						
Connecticut	487,757	486,135	131,751	148,011	53,835	36,171
Maine	229,415	238,602	62,311	65,571	20,677	9,610
Massachusetts	760,180	776,428	255,013	280,327	144,029	50,658
New Hampshire	165,599	135,995	70,359	37,673	11,542	5,912
Rhode Island	134,202	125,898	37,406	33,861	21,208	8,384
Vermont	78,813	77,598	27,382	22,567	7,615	9,179
Central Atlantic States						
Delaware	56,317	44,361	15,196	10,267	8,024	8,054
District of Columbia	17,187	16,728	27,269	41,454	319	185
Maryland	231,865	202,295	81,249	64,719	25,500	38,621
New Jersey	732,455	725,030	327,048	373,217	82,160	86,418
New York	1,521,225	1,430,302	620,814	691,598	71,588	60,736
Pennsylvania	800,822	792,213	237,251	252,099	212,659	168,109
Lower Atlantic States						
Florida	30,240	19,440	162,109	143,564	57,029	37,009
Georgia	14,393	15,290	42,160	41,664	42,447	44,271
North Carolina	238,714	209,081	123,234	101,547	83,480	75,319
South Carolina	56,813	49,350	36,463	29,475	19,171	21,825
Virginia	278,832	272,675	109,206	118,807	82,046	78,909
West Virginia	26,618	23,444	18,922	31,480	72,406	36,842
Total	**5,883,446**	**5,640,866**	**2,385,143**	**2,487,902**	**1,015,737**	**776,212**
PAD District 2						
Illinois	80,088	92,199	69,207	83,345	169,101	126,605
Indiana	115,985	121,016	58,620	77,236	129,888	114,395
Iowa	51,164	66,268	31,893	28,593	16,987	18,432
Kansas	897	1,026	11,391	14,341	18,973	16,670
Kentucky	31,939	28,656	22,393	43,004	154,529	144,857
Michigan	219,002	247,026	73,364	124,094	54,714	59,349
Minnesota	163,249	167,864	42,344	45,223	34,865	22,092
Missouri	27,478	34,414	77,984	82,227	38,968	28,078
Nebraska	8,467	11,862	14,868	13,962	4,107	7,826
North Dakota	37,603	44,336	10,166	13,168	9,518	11,851
Ohio	174,803	192,443	86,873	89,300	111,988	121,633
Oklahoma	418	1,256	17,136	11,825	21,875	27,761
South Dakota	35,955	43,684	17,378	11,378	5,119	3,794
Tennessee	9,578	6,966	46,757	69,292	42,537	46,832
Wisconsin	242,832	289,801	75,446	72,527	25,829	24,204
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PAD District 3						
Alabama	1,252	1,624	48,271	40,758	89,473	93,129
Arkansas	65	45	15,094	7,814	22,016	15,462
Louisiana	79	371	78,948	169,154	50,978	64,296
Mississippi	669	121	33,410	18,549	24,766	15,803
New Mexico	533	1,465	29,700	17,035	100,920	79,485
Texas	3,441	867	343,872	227,237	210,129	341,168
Total	**6,038**	**4,494**	**549,295**	**480,548**	**498,282**	**609,432**
PAD District 4						
Colorado	2,481	2,846	40,282	17,036	26,577	17,980
Idaho	24,134	26,616	17,741	11,969	17,848	15,040
Montana	10,384	14,741	12,817	16,926	21,27[illegible]	21,347
Utah	4,254	3,132	30,925	36,221	32,639	37,248
Wyoming	1,390	1,128	11,472	16,481	50,001	39,056
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PAD District 5						
Alaska	67,769	44,716	44,289	35,147	6,805	19,149
Arizona	814	448	22,266	15,991	38,623	38,770
California	11,983	10,059	289,047	237,284	274,630	230,602
Hawaii	35	30	20,297	7,584	4,832	4,526
Nevada	13,652	10,342	30,003	20,679	35,521	22,697
Oregon	73,365	85,852	68,111	56,324	32,295	22,725
Washington	127,228	128,928	97,895	101,559	44,765	42,972
Total	**294,846**	**280,374**	**571,909**	**474,567**	**437,472**	**381,440**
U.S. Total	**7,426,412**	**7,294,814**	**4,279,375**	**4,293,095**	**2,917,624**	**2,664,102**

...By End Use

(Add 000 gal.)

N.B.: In 1985, EIA began publishing two sets of product tables, one for sales, the other for deliveries. Both are based on the same raw data. The sales tables reflect the questionnaire totals; the deliveries table are adjustments to correlate them with other industry data. EIA's original objective was to switch to the sales tables and drop the deliveries tables. However, because of statistical disparities, this switch-over has been delayed indefinitely. The data on these pages are the deliveries tables and are compatible with prior NPN Factbook summaries even though the latter were then labelled "sales".

	Oil Company		Farm		Electric Utility	
	1987	1986	1987	1986	1987	1986
PAD District 1						
New England States						
Connecticut	2,053	500	2,513	656	730	443
Maine	141	87	3,930	3,636	1,647	495
Massachusetts	771	998	2,457	1,912	11,951	7,708
New Hampshire	21	5	1,596	1,502	1,124	835
Rhode Island	269	263	144	156	756	1,483
Vermont	74	9	7,579	5,744	2,374	678
Central Atlantic States						
Delaware	631	542	6,111	6,835	14,956	3,435
District of Columbia	—	—	—	—	34,230	21,385
Maryland	1,198	821	21,196	18,717	31,557	46,790
New Jersey	1,351	2,256	17,706	19,661	16,700	56,841
New York	5,366	4,417	43,021	40,734	43,499	70,469
Pennsylvania	17,119	17,948	53,781	34,130	53,043	29,560
Lower Atlantic States						
Florida	785	895	81,896	117,634	45,995	48,933
Georgia	398	806	69,287	87,845	5,382	3,927
North Carolina	454	110	38,153	50,195	18,118	13,821
South Carolina	991	860	19,480	20,178	7,437	5,839
Virginia	1,569	1,233	31,598	24,328	16,091	12,520
West Virginia	7,497	11,204	5,888	4,150	12,448	12,312
Total	**40,688**	**42,957**	**406,337**	**438,013**	**318,039**	**337,475**
PAD District 2						
Illinois	13,180	16,500	172,477	184,740	28,744	17,200
Indiana	868	1,519	90,300	94,791	18,922	11,895
Iowa	381	63	175,768	215,867	4,318	1,901
Kansas	6,661	10,656	132,207	136,183	2,616	2,531
Kentucky	803	761	50,880	35,571	10,039	5,699
Michigan	2,138	5,476	73,910	92,352	29,468	29,831
Minnesota	333	498	144,186	182,360	6,840	5,687
Missouri	540	790	57,913	71,293	11,801	10,758
Nebraska	631	663	140,097	153,030	2,418	259
North Dakota	6,088	4,939	86,566	106,838	1,713	2,055
Ohio	10,341	18,851	70,863	87,924	23,388	20,101
Oklahoma	25,779	24,537	41,092	47,636	177	320
South Dakota	13	20	83,315	93,749	74	1,001
Tennessee	911	2,045	38,275	41,699	4,048	97
Wisconsin	332	427	77,064	93,392	2,344	5,787
Total	[illegible]	[illegible]	**1,434,999**	**1,818,414**	**146,860**	**113,118**
PAD District 3						
Alabama	3,304	3,636	43,392	33,872	8,530	8,836
Arkansas	4,103	4,053	137,183	170,808	10,946	11,887
Louisiana	264,374	233,721	179,567	149,420	6,506	5,606
Mississippi	40,164	31,602	124,457	111,383	1,105	3,100
New Mexico	16,542	16,564	28,544	30,723	[illegible]	1,597
Texas	340,970	256,724	318,162	279,621	34,322	17,173
Total	**669,459**	**546,300**	**831,305**	**775,828**	**62,726**	**48,278**
PAD District 4						
Colorado	5,012	7,883	57,527	64,387	4,341	6,059
Idaho	97	172	63,953	68,011	208	424
Montana	1,735	3,093	39,971	48,017	1,549	944
Utah	3,571	2,410	11,30[illegible]	14,398	8,849	10,375
Wyoming	20,435	18,423	13,394	17,170	4,830	3,689
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PAD District 5						
Alaska	9,312	10,516	76	183	25,736	37,152
Arizona	173	179	28,016	29,018	3,581	3,542
California	56,670	27,370	233,467	198,254	12,191	8,777
Hawaii	3,286	663	20,187	12,563	54,577	38,505
Nevada	653	693	6,304	6,612	1,415	3,613
Oregon	597	141	44,260	48,106	95	151
Washington	1,023	1,327	50,871	51,059	1,456	1,278
Total	**71,714**	**40,888**	**383,181**	**347,795**	**99,052**	**93,010**
U.S. Total	**881,729**	**749,992**	**3,241,968**	**3,380,046**	**646,073**	**614,361**

Distillate Deliveries 1987...

(Add 000 gal.)

Destination	Railroad 1987	Railroad 1986	Vessel Bunkering 1987	Vessel Bunkering 1986	On-Highway 1987	On-Highway 1986
PAD District 1						
New England States						
Connecticut	176	—	1,669	2,690	188,172	179,230
Maine	8,847	10,282	2,611	2,996	157,344	140,312
Massachusetts	4,202	6,011	49,710	51,946	282,982	267,065
New Hampshire	468	1,830	764	334	54,975	50,895
Rhode Island	88	475	2,125	4,439	55,520	44,667
Vermont	2,719	3,059	320	310	50,607	40,202
Central Atlantic States						
Delaware	90	103	5,713	4,186	58,756	52,855
District of Columbia	402	2,848	29	27	21,822	21,413
Maryland	30,052	33,424	9,355	24,517	269,433	274,995
New Jersey	37,882	28,843	120,272	135,508	446,805	450,858
New York	31,033	21,605	35,488	13,507	633,543	614,646
Pennsylvania	72,994	59,823	32,523	26,594	868,850	810,753
Lower Atlantic States						
Florida	120,725	88,036	125,796	116,019	654,444	680,975
Georgia	88,701	70,226	9,210	14,520	772,080	710,528
North Carolina	57,175	64,774	9,493	14,240	580,195	548,890
South Carolina	38,296	31,346	15,699	14,172	282,618	293,541
Virginia	117,060	118,358	38,282	33,115	501,785	468,608
West Virginia	12,284	13,444	47,194	26,522	150,200	132,361
Total	**623,197**	**554,488**	**506,253**	**485,642**	**6,049,931**	**5,782,794**
PAD District 2						
Illinois	117,558	138,398	19,633	57,006	724,862	685,139
Indiana	186,866	194,145	12,014	16,136	698,704	681,413
Iowa	42,189	43,508	1,222	1,531	322,228	288,308
Kansas	146,252	132,889	—	—	361,717	253,237
Kentucky	122,098	99,752	86,395	92,588	366,048	368,109
Michigan	51,430	45,907	3,934	238	511,402	478,218
Minnesota	40,827	48,730	1,431	1,740	313,256	288,380
Missouri	30,314	34,868	26,862	37,806	467,083	472,721
Nebraska	128,525	109,764	—	—	201,094	188,890
North Dakota	37,165	32,804	880	1	88,164	87,289
Ohio	136,386	148,782	1,852	2,976	751,521	787,895
Oklahoma	55,498	80,699	1,523	381	383,820	368,795
South Dakota	1,664	418	—	—	89,862	90,150
Tennessee	89,038	118,134	82,357	73,382	562,038	527,288
Wisconsin	39,168	43,977	8,029	15,880	384,232	364,056
Total	**1,223,718**	**1,242,884**	**256,813**	**301,496**	**6,226,136**	[illegible]
PAD District 3						
Alabama	69,164	66,491	66,895	37,112	404,744	368,011
Arkansas	29,116	28,504	721	1,381	322,040	295,187
Louisiana	68,469	104,069	418,116	308,847	344,059	349,332
Mississippi	12,438	21,437	64,719	68,456	289,999	287,753
New Mexico	49,472	43,608	—	—	189,499	182,996
Texas	352,146	304,516	345,293	299,698	1,319,054	1,437,192
Total	**580,804**	**568,624**	**895,743**	**715,494**	**2,869,395**	**2,920,471**
PAD District 4						
Colorado	60,228	62,883	—	—	184,224	186,318
Idaho	20,024	20,250	97	114	102,878	98,008
Montana	67,173	65,986	—	—	106,998	105,048
Utah	34,532	36,113	—	—	140,894	139,467
Wyoming	56,056	61,346	—	—	181,974	102,219
Total	**238,011**	**249,842**	**97**	**114**	[illegible]	[illegible]
PAD District 5						
Alaska	3,926	2,096	71,125	58,752	61,624	97,190
Arizona	37,439	49,061	—	559	269,026	260,167
California	237,239	241,723	301,011	217,325	1,256,749	1,570,607
Hawaii	39	234	39,061	46,608	20,219	19,618
Nevada	38,042	34,211	—	—	119,411	97,170
Oregon	103,546	106,826	35,403	26,304	269,015	244,854
Washington	60,857	53,158	117,752	181,921	314,460	332,326
Total	**481,090**	**487,308**	**564,352**	**531,469**	**2,310,504**	**2,641,932**
U.S. Total	**3,147,661**	**3,099,618**	**2,223,258**	**2,034,215**	**18,172,934**	**17,926,508**

...By End Use (Continued)

(Add 000 gal.)

Destination	Military		Off-Highway		All Other		Total	
	1987	1986	1987	1986	1987	1986	1987	1986
PAD District 1								
New England States								
Connecticut	3,906	237	11,894	6,221	976	762	885,432	861,057
Maine	1,825	180	13,662	9,974	138	5	502,548	481,750
Massachusetts	5,603	2,542	14,873	11,250	189	861	1,551,961	1,457,705
New Hampshire	946	231	9,256	6,778	7	128	316,658	242,117
Rhode Island	1,027	48	1,085	2,999	80	250	253,910	222,923
Vermont	736	31	4,544	6,005	136	208	182,901	165,589
Central Atlantic States								
Delaware	1,242	4,963	2,948	2,126	—	93	169,963	137,819
District of Columbia	10,618	11,903	165	197	13	2,921	112,055	119,063
Maryland	13,528	10,976	17,940	22,511	4,012	6,977	756,885	745,363
New Jersey	8,370	1,175	22,854	32,789	524	2,874	1,814,128	1,915,470
New York	3,807	1,447	41,920	22,979	475	3,294	3,051,777	2,975,734
Pennsylvania	22,535	454	38,908	54,692	1,294	1,840	2,411,580	2,248,217
Lower Atlantic States								
Florida	32,760	30,309	71,958	56,331	591	2,897	1,384,330	1,342,043
Georgia	9,868	6,736	33,482	32,714	4,886	1,630	1,092,293	1,030,158
North Carolina	4,938	13,728	32,484	27,480	5,343	39,375	1,191,782	1,158,561
South Carolina	2,449	4,025	16,671	20,303	2,272	1,151	500,360	492,066
Virginia	25,011	29,765	28,440	32,150	3,231	3,954	1,233,151	1,194,423
West Virginia	336	32	20,510	26,054	—	628	374,302	318,474
Total	149,504	118,781	383,592	373,553	24,169	69,849	17,786,034	17,108,532
PAD District 2								
Illinois	883	908	59,587	52,348	1,873	8,535	1,444,273	1,473,068
Indiana	4,571	4,437	13,305	13,335	4,340	1,420	1,333,573	1,333,836
Iowa	310	30	13,173	10,757	1,883	490	861,491	867,727
Kansas	3,670	336	21,062	23,200	1,368	1,362	690,033	596,455
Kentucky	5,971	5,063	21,543	20,983	1,598	1,194	882,091	853,056
Michigan	6,150	2,236	46,309	33,403	3,031	2,880	1,075,846	1,121,014
Minnesota	2,404	708	17,221	21,298	2,936	1,568	769,690	796,141
Missouri	8,679	3,375	33,224	13,970	3,602	731	812,428	771,022
Nebraska	1,280	384	17,881	18,809	241	900	517,586	504,149
North Dakota	2,512	1,405	5,562	6,580	390	16	286,029	310,569
Ohio	9,808	[illegible]	28,130	85,128	1,375	1,707	1,409,306	1,504,194
Oklahoma	2,045	[illegible]	20,677	39,107	4,616	7,076	583,865	581,104
South Dakota	2,098	386	11,838	8,926	285	314	247,601	253,832
Tennessee	1,552	1,580	83,348	83,726	1,023	286	943,467	941,370
Wisconsin	1,210	158	22,425	24,476	4,475	2,212	883,364	918,886
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PAD District 3								
Alabama	6,712	2,558	49,742	38,361	1,711	2,649	793,189	897,038
Arkansas	1,759	2,944	31,618	30,192	866	231	575,527	568,508
Louisiana	62,644	31,871	66,459	49,815	2,331	3,685	1,542,530	1,470,267
Mississippi	68,112	36,284	41,235	26,960	1,690	1,905	702,763	623,353
New Mexico	6,933	1,529	22,965	32,212	138	366	446,563	407,580
Texas	222,093	182,423	232,075	274,751	2,067	1,744	3,723,624	3,623,112
Total	368,253	257,608	444,094	452,291	8,803	10,580	7,784,196	7,389,858
PAD District 4								
Colorado	11,582	6,596	28,248	46,762	328	4,768	414,808	425,878
Idaho	2,735	1,456	18,379	12,099	291	4,251	269,385	248,406
Montana	436	166	12,585	14,725	145	1,965	275,031	253,970
Utah	1,314	4,113	18,630	26,822	338	864	285,248	311,964
Wyoming	459	449	22,880	23,500	4,726	4,763	368,196	288,273
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PAD District 5								
Alaska	27,611	12,647	25,802	15,427	227	2,793	344,301	335,767
Arizona	1,422	1,598	35,560	48,784	93	47	437,012	468,164
California	233,580	232,081	201,486	168,855	1,639	5,163	3,109,692	3,148,100
Hawaii	13,312	61,104	4,288	4,946	—	—	180,134	196,381
Nevada	1,967	2,865	25,818	30,823	458	4,460	273,244	234,165
Oregon	3,256	1,067	50,498	32,960	247	42	680,689	625,351
Washington	15,649	28,581	58,936	54,491	1,326	480	892,223	978,080
Total	296,795	399,943	402,390	356,287	3,992	12,986	5,917,296	5,986,008
U.S. Total	884,392	760,417	1,732,106	1,699,252	75,815	140,661	45,629,346	44,677,080

Source: Energy Information Administration, Petroleum Marketing Monthly, July 1988.

Deliveries of Kerosine in 1987...

(Add 000 gal.)

Destination	Residential		Commercial		Industrial	
	1987	1986	1987	1986	1987	1986
PAD District 1						
New England States						
Connecticut	9,778	9,001	2,685	1,428	553	486
Maine	15,166	13,302	994	544	69	45
Massachusetts	12,750	10,660	1,203	6,176	617	415
New Hampshire	9,692	7,523	877	422	523	31
Rhode Island	2,445	3,447	130	86	46	8
Vermont	6,034	6,192	793	1,275	17	59
Central Atlantic States						
Delaware	8,114	6,804	401	360	46	—
District of Columbia	257	237	13	6	23	21
Maryland	27,318	17,639	553	1,054	228	459
New Jersey	12,336	13,717	2,630	2,305	3,319	1,091
New York	77,279	47,048	7,645	4,863	954	408
Pennsylvania	51,713	63,317	7,880	8,399	5,315	5,646
Lower Atlantic States						
Florida	15,166	11,838	11,227	18,056	105	109
Georgia	3,125	4,315	815	1,546	296	463
North Carolina	77,210	70,788	3,307	3,660	3,905	4,952
South Carolina	27,767	21,119	1,267	1,177	1,940	1,584
Virginia	52,477	52,692	4,750	3,068	740	1,007
West Virginia	8,241	9,682	1,438	1,181	1,333	695
Total	**416,867**	**369,320**	**48,609**	**55,604**	**20,027**	**17,480**
PAD District 2						
Illinois	8,529	8,571	1,545	4,146	3,069	3,586
Indiana	14,902	16,664	1,828	6,813	8,750	6,210
Iowa	2,123	3,159	220	79	46	41
Kansas	687	781	587	281	94	101
Kentucky	16,457	26,462	2,478	6,327	4,184	8,627
Michigan	12,007	14,098	543	570	2,044	1,839
Minnesota	2,781	3,720	200	167	28	34
Missouri	1,870	2,448	231	410	52	88
Nebraska	486	768	159	898	2,370	4,258
North Dakota	210	321	42	14	—	16
Ohio	39,581	80,041	8,977	8,037	2,838	8,843
Oklahoma	805	382	194	282	1,162	[illegible]
South Dakota	544	906	24	37	1	4
Tennessee	16,651	13,989	4,083	3,837	2,569	2,131
Wisconsin	3,748	3,002	175	100	111	146
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PAD District 3						
Alabama	39,629	36,147	32,481	16,124	14,725	14,986
Arkansas	14,052	14,225	3,180	3,695	6,074	8,318
Louisiana	6,451	8,853	13,974	11,874	21,412	33,638
Mississippi	18,424	21,366	4,172	10,455	26,287	7,014
New Mexico	14,457	11,795	10,166	7,336	9,297	12,649
Texas	39,370	25,990	54,384	99,974	33,669	35,393
Total	**132,382**	**118,376**	**118,356**	**149,458**	**111,463**	[illegible]
PAD District 4						
Colorado	889	1,068	884	484	124	91
Idaho	213	180	61	58	8	28
Montana	44	490	1	249	—	
Utah	287	155	579	207	86	462
Wyoming	74	51	73	78	118	123
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PAD District 5						
Alaska	11	9	65,325	66,292	5	1
Arizona	42	45	280	262	356	453
California	1,117	2,515	2,292	1,542	5,199	2,476
Hawaii	0	0	25	40	2	2
Nevada	275	583	52	64	148	44
Oregon	138	296	72	100	14	7
Washington	552	685	10,984	711	178	8,885
Total	**2,135**	**4,133**	**79,029**	**71,011**	**5,902**	**11,867**
U.S. Total	**671,350**	**641,742**	**267,437**	**307,704**	**160,057**	**173,859**

...By End Use

(Add 000 gal.)

N.B.: In 19[illegible], EIA began publishing two sets of product tables, one for sales, the other for deliveries. Both are based on the same raw data. The sales tables reflect the questionnaire total; the deliveries table are adjustments to correlate them with other industry data. EIA's original objective was to switch to the sales tables and drop the deliveries tables. However, because of statistical disparities, this switch-over has been delayed indefinitely. The data on these pages are the deliveries tables and are compatible with prior NPN Factbook summaries even though the latter were then labelled "sales".

	Oil Company		Farm		Electric Utility	
	1987	1986	1987	1986	1987	1986
PAD District 1						
New England States						
Connecticut	15	1	906	1,028	13,937	11,944
Maine	412	273	449	76	17,091	14,240
Massachusetts	4	5	418	345	14,992	17,600
New Hampshire	15	10	98	111	11,205	8,097
Rhode Island	0	0	27	43	2,648	3,583
Vermont	543	312	226	258	7,612	8,097
Central Atlantic States						
Delaware	283	23	15	23	8,858	7,209
District of Columbia	—	—	27	14	320	278
Maryland	362	85	624	690	29,085	19,927
New Jersey	233	14	13,183	8,915	31,700	26,043
New York	1,381	1,022	12,770	11,849	100,030	65,192
Pennsylvania	2,595	1,787	2,698	2,058	70,200	81,207
Lower Atlantic States						
Florida	73	65	811	591	27,383	30,659
Georgia	784	621	277	252	5,297	7,198
North Carolina	2,170	3,633	1,509	901	88,101	83,933
South Carolina	608	478	1,113	797	32,695	25,154
Virginia	1,328	651	934	2,382	60,229	59,800
West Virginia	371	226	1,137	720	12,521	12,503
Total	**11,178**	**9,208**	**37,222**	**31,052**	**533,904**	**482,664**
PAD District 2						
Illinois	791	[illegible]	263	174	11,199	[illegible]
Indiana	796	2,921	944	390	22,193	[illegible]
Iowa	1,324	1,559	54	43	4,098	[illegible]
Kansas	845	1,002	661	902	2,654	[illegible]
Kentucky	722	2,311	110	175	23,962	[illegible]
Michigan	364	843	605	55	15,593	[illegible]
Minnesota	336	1,151	28	148	3,351	5,240
Missouri	341	31	88	225	2,680	3,187
Nebraska	308	1,739	821	17	3,840	7,183
North Dakota	24	322	1	1	278	875
Ohio	2,942	3,467	1,501	985	58,865	66,369
Oklahoma	155	382	12	573	2,339	3,247
South Dakota	133	476	4	5	706	1,508
Tennessee	76	91	867	225	24,870	20,244
Wisconsin	207	686	48	2	4,284	4,032
Total	[illegible]	**17,442**	[illegible]	[illegible]	[illegible]	[illegible]
PAD District 3						
Alabama	153	419	3,770	5,522	90,757	73,198
Arkansas	1,139	1,206	4,455	1,649	28,900	29,093
Louisiana	391	2,047	5,373	71,214	47,601	127,626
Mississippi	2,791	9,201	178	270	51,851	48,305
New Mexico	4,673	567	1,166	6,206	39,758	38,553
Texas	4,400	7,338	256,055	214,459	388,479	383,154
Total	**13,547**	**20,779**	**271,598**	**299,320**	**647,346**	**699,930**
PAD District 4						
Colorado	239	221	569	321	2,705	2,255
Idaho	9	18	2	5	292	292
Montana	210	52	2	2	258	[illegible]
Utah	38	12	—	28	[illegible]	[illegible]
Wyoming	30	22	62	68	334	303
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PAD District 5						
Alaska	—	0	0	49	65,341	68,351
Arizona	3	2	1	1	683	762
California	63	91	671	108	9,342	6,732
Hawaii	0	0	—	1	27	43
Nevada	2	3	2	14	480	708
Oregon	1	15	5	3	229	421
Washington	7	12	1	8	11,721	10,302
Total	**76**	**123**	**680**	**183**	**87,822**	**87,318**
U.S. Total	**34,761**	**47,948**	**315,900**	**334,908**	**1,449,504**	**1,506,162**

Source: Energy Information Administration, Petroleum Marketing Monthly, July 1988

Residual Fuel Oil Deliveries in 1986...

(Add 000 gal.)

	Commercial		Industrial		Oil Company		Electric Utility	
Destination	1987	1986	1987	1986	1987	1986	1987	1986
PAD District 1								
New England States								
Connecticut	38,676	42,735	58,832	61,826	—	18	776,584	492,896
Maine	20,992	38,903	123,998	184,305	—	14	165,440	172,921
Massachusetts	84,667	91,246	212,160	361,232	—	—	1,318,023	1,537,091
New Hampshire	8,384	13,900	42,797	52,626	—	—	124,555	157,651
Rhode Island	15,103	30,396	24,845	30,614	—	—	31,645	44,017
Vermont	2,718	3,598	7,241	8,937	—	—	—	—
Central Atlantic States								
Delaware	4,931	4,190	22,959	6,065	4,802	12,524	97,830	51,886
District of Columbia	24,423	26,639	—	—	—	—	—	—
Maryland	54,307	23,105	22,337	23,844	1,503	1,433	180,516	179,662
New Jersey	70,965	72,365	179,640	121,092	1,370	5,150	319,839	925,289
New York	563,858	531,542	149,824	158,769	1,088	1,044	2,106,237	2,051,424
Pennsylvania	35,688	25,192	123,550	101,060	41,188	34,920	418,891	513,833
Lower Atlantic States								
Florida	60,201	74,526	52,888	100,130	16	529	1,175,781	1,638,824
Georgia	29,535	27,679	43,151	41,221	305	77	6,566	4,809
North Carolina	1,868	6,414	53,775	157,469	1,437	1,051	—	5,410
South Carolina	1,005	877	54,483	45,909	—	937	—	7,152
Virginia	29,434	25,981	83,272	99,644	537	1,297	210,172	128,130
West Virginia	109	248	12,997	26,701	2,947	4,535	—	19
Total	**1,046,861**	**1,039,537**	**1,378,749**	**1,581,444**	**55,193**	**63,530**	**6,932,080**	**7,911,014**
PAD District 2								
Illinois	40,298	45,170	80,391	85,546	39,679	95,579	133,836	98,833
Indiana	12,308	12,335	78,709	104,498	64,899	98,794	—	—
Iowa	786	1,958	4,049	23,822	—	—	—	8
Kansas	13	440	9,710	19,061	4,757	4,472	—	—
Kentucky	37	1,810	37,078	24,008	9,666	11,961	—	—
Michigan	5,938	11,673	78,214	108,530	10,834	10,075	28,568	43,893
Minnesota	5,700	15,579	38,002	61,919	9,313	11,387	—	140
Missouri	5,281	6,533	23,638	19,021	—	—	10,994	9,224
Nebraska	12	—	9,072	9,892	17	—	5,047	—
North Dakota	1,475	3,961	4,803	5,139	8,274	8,693	287	522
Ohio	2,135	8,120	72,490	85,857	11,898	19,075	2,876	3,515
Oklahoma	720	—	13,901	19,152	—	437	—	—
South Dakota	325	358	2,049	2,620	—	—	—	—
Tennessee	2,932	6,528	10,967	21,924	230	—	—	—
Wisconsin	5,115	12,798	42,699	29,751	4,345	5,627	—	—
Total	**83,194**	**127,084**	**494,978**	**620,738**	**163,913**	**265,041**	**181,608**	**156,135**
PAD District 3								
Alabama	162,819	171,254	232,027	170,639	7,972	—	—	1,869
Arkansas	—	1,062	112,818	268,661	—	—	156	639
Louisiana	113,758	70,937	895,919	518,760	15,614	12,916	814	172,403
Mississippi	9,666	27,837	27,073	377,768	—	898	5,781	73,925
New Mexico	—	—	24,033	67,879	168	182	546	723
Texas	227,900	75,964	339,009	327,488	46,577	40,600	869	129,116
Total	**514,143**	**347,054**	**1,630,878**	**1,731,195**	**70,331**	**54,597**	**8,167**	**378,075**
PAD District 4								
Colorado	—	12,833	8,860	30,793	—	45	—	—
Idaho	2,477	571	13,912	3,005	—	—	—	—
Montana	3,304	6,611	2,499	1,462	—	—	—	66
Utah	25,024	7,514	25,894	21,033	36,852	34,214	—	—
Wyoming	7,686	19,342	3,930	5,036	12,977	6,419	—	—
Total	**38,489**	**46,871**	**55,095**	**61,428**	**49,829**	**40,678**	**—**	**66**
PAD District 5								
Alaska	34,123	53,499	17,738	84,920	—	7,418	—	474
Arizona	—	—	304	1,237	—	—	333	—
California	16,483	31,181	110,579	151,451	142,937	297,853	61,498	170,059
Hawaii	22,334	2,170	2,875	9,103	13,814	23,356	433,360	410,745
Nevada	190	454	1,125	3,108	433	710	14,063	13,874
Oregon	3,819	10,644	27,001	69,203	418	528	—	—
Washington	954	4,531	91,332	198,645	5,749	11,324	520	565
Total	**77,904**	**102,479**	**250,954**	**517,667**	**163,350**	**341,188**	**510,225**	**595,717**
U.S. Total	**1,764,531**	**1,663,005**	**3,810,345**	**4,492,393**	**502,615**	**766,034**	**7,631,898**	**9,041,608**

...By End Use

N.B.: In 1985, EIA began publishing two sets of product tables, one for sales, the other for deliveries. Both are based on the same raw data. The sales tables reflect the questionnaire totals; the deliveries table are adjustments to correlate them with other industry data. EIA's original objective was to switch to the sales tables and drop the deliveries tables. However, because of statistical disparities, this switch-over has been delayed indefinitely. The data on these pages are the deliveries tables and are compatible with prior NPN Factbook summaries even though the latter were then labelled "sales".

	Railroad		Vessel Bunkering		Military		All Other		Total	
Destination	**1987**	**1986**	**1987**	**1986**	**1987**	**1986**	**1987**	**1986**	**1987**	**1986**
PAD District 1										
New England States										
Connecticut	—	—	202	392	3,488	1,555	—	—	877,782	599,422
Maine	270	135	117	1,739	2,145	182	—	--	312,962	398,198
Massachusetts	—	—	9,098	12,392	4,484	11,083	—	36	1,628,432	2,013,131
New Hampshire	—	—	16	27	12,449	3,756	—	—	188,201	227,959
Rhode Island	—	—	242	164	8,676	—	—	422	80,511	105,614
Vermont	—	—	—	—	133	—	—	—	10,092	12,535
Central Atlantic States										
Delaware	—	—	28,315	14,875	1,498	2,646	—	—	160,336	92,186
District of Columbia	—	—	—	—	—	6,111	—	—	24,423	32,750
Maryland	—	—	31,580	26,644	42,371	16,828	—	—	332,613	271,516
New Jersey	—	—	286,705	375,710	7,441	34,107	886	16,529	866,845	1,550,243
New York	—	—	46,638	39,898	13,176	3,248	4,457	892	2,885,277	2,786,818
Pennsylvania	—	10	140,530	121,510	3,672	3,127	—	—	763,519	799,652
Lower Atlantic States										
Florida	—	—	199,984	191,014	51,075	33,956	102	1,227	1,540,047	2,040,206
Georgia	—	—	11,401	17,553	1,403	2,272	—	—	92,361	93,611
North Carolina	—	—	11,382	2,812	9,668	1,960	178	423	188,309	175,540
South Carolina	—	—	13,598	15,007	1,284	3,734	—	—	70,371	73,616
Virginia	20	—	59,559	73,579	15,578	20,357	0	—	398,572	348,988
West Virginia	—	—	—	—	—	—	—	—	16,054	31,502
Total	**290**	**145**	**839,368**	**893,318**	**178,542**	**144,921**	**5,623**	**19,580**	**10,436,706**	**11,653,488**
PAD District 2										
Illinois	—	—	4,461	3,473	—	408	—	17	298,464	[illegible]
Indiana	—	—	4,923	1,907	—	382	—	543	159,837	[illegible]
Iowa	—	—	—	—	438	—	—	—	5,272	25,787
Kansas	—	22	—	—	—	—	—	—	14,481	23,984
Kentucky	—	—	—	—	—	—	—	—	37,581	37,518
Michigan	—	—	1,319	77	1,144	2,429	42	316	128,079	[illegible]
Minnesota	—	298	174	1,237	—	—	195	683	53,365	81,144
Missouri	—	—	—	—	—	2,114	—	20	39,913	36,912
Nebraska	4	7	—	—	—	—	10	225	14,162	10,124
North Dakota	—	84	—	—	—	—	1,150	1,288	15,989	19,888
Ohio	—	—	[illegible]	166	—	—	—	—	80,798	116,734
Oklahoma	—	—	—	—	—	—	—	—	14,821	[illegible]
South Dakota	—	—	—	—	—	—	—	—	2,373	2,978
Tennessee	—	—	21	—	—	—	—	1,027	14,150	29,479
Wisconsin	—	—	—	4,127	—	—	—	—	52,158	[illegible]
Total	**4**	**411**	**12,233**	**10,987**	**1,582**	**5,333**	**1,397**	**[illegible]**	**[illegible]**	**[illegible]**
PAD District 3										
Alabama	—	—	58,842	44,430	579	—	—	—	458,240	388,192
Arkansas	—	—	—	—	—	—	—	—	112,973	270,362
Louisiana	—	—	800,830	785,142	—	3,116	17,428	[illegible],973	1,844,363	1,568,247
Mississippi	—	—	67,230	57,992	--	—	—	—	109,750	538,420
New Mexico	—	—	—	--	--	—	—	—	24,747	88,784
Texas	--	—	724,019	840,193	—	—	186,224	148,059	1,524,599	1,561,421
Total	**—**	**--**	**1,646,922**	**1,727,757**	**579**	**3,116**	**203,652**	**153,033**	**4,074,672**	**4,395,426**
PAD District 4										
Colorado	—	13	—	--	—	—	—	—	8,850	43,5[illegible]
Idaho	—	—	—	--	—	—	—	—	16,388	3,575
Montana	—	—	—	--	—	—	76	267	5,979	8,427
Utah	—	—	—	--	—	—	—	—	91,769	62,760
Wyoming	—	—	—	—	—	—	[illegible]	2,921	30,488	33,719
Total	**—**	**13**	**—**	**—**	**—**	**—**	**[illegible]**	**3,188**	**[illegible]**	**[illegible]**
PAD District 5										
Alaska	—	—	5,404	6,030	—	—	—	62,905	57,265	215,247
Arizona	—	—	—	—	—	—	—	—	637	1,237
California	—	—	2,186,577	1,938,071	4,934	18,444	—	38,409	2,523,458	2,645,467
Hawaii	—	—	48,618	82,723	1,163	—	6,484	30,811	528,648	558,908
Nevada	—	—	—	—	—	253	—	154	15,812	18,554
Oregon	—	—	148,752	159,963	2,630	—	—	58	182,620	240,396
Washington	—	—	371,393	468,498	1,615	8,851	39	102	471,602	692,517
Total	**—**	**—**	**2,760,744**	**2,655,265**	**10,341**	**27,548**	**6,524**	**132,441**	**3,780,042**	**4,372,326**
U.S. Total	**294**	**569**	**5,259,272**	**5,287,347**	**191,045**	**180,918**	**223,168**	**312,241**	**19,383,168**	**21,744,114**

Source: Energy Information Administration, Petroleum Marketing Monthly, July, 1988.

Distillate Deliveries by Annual Uses

(Add 000 bbl.)

Year	Residential	Commercial	Industrial	Farm	Oil Company	Electric Utilities	Diesel	Other	Total
1987	176,819	101,890	69,472	77,190	20,994	15,383	473,930	150,741	1,086,419
1986	173,686	102,217	63,907	80,477	17,857	14,628	467,280	143,688	1,063,740
1985	171,736	107,481	61,730	78,841	20,869	12,246	411,420	99,984	1,046,827
1984(a)	164,529	116,729	56,113	70,819	21,623	16,405	439,786	139,173	1,041,217
1983(a)	159,481	112,392	54,030	67,582	21,510	11,744	408,594	131,142	981,926
1982	180,760	75,669	71,340	68,453	29,482	12,134	375,124	164,253	974,864
1981	197,400	78,663	80,216	69,665	29,185	18,192	378,853	180,302	1,032,476
1980	227,261	92,136	86,089	73,615	24,205	31,812	377,136	175,355	1,086,709

(a) In 1984, (as it did in 1979), Energy Information Administration revised some of its sampling procedures and adjusted some of the categories to reflect market volumes. Thus the 1984 and 1983 data are estimates and may not be truly comparable to 1982 and the preceding years. Also, see special caveat at the top of the preceding pages.

Residual Deliveries by Annual Uses

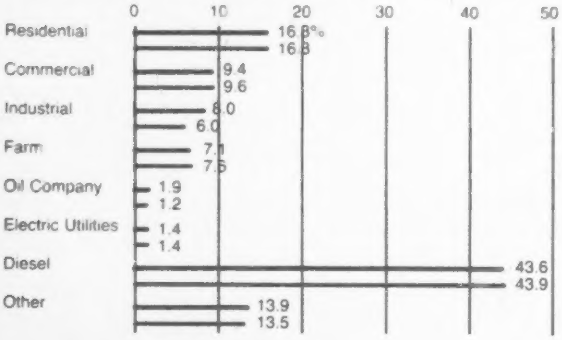
(Add 000 bbl.)

Year	Vessel Bunkering	Electric Utilities	Railroads	Oil Companies	Industrial	Commercial	Military	Other	Total
1987	125,221	181,712	7	11,967	90,723	42,013	4,549	5,316	461,504
1986	125,889	215,276	14	18,239	106,962	35,595	4,308	7,434	517,717
1985	130,323	147,381	147	18,477	95,509	31,592	4,593	10,962	438,840
1984(a)	135,400	186,318	43	27,680	94,375	33,777	5,291	18,307	501,199
1983(a)	136,290	204,238	47	28,604	93,624	35,979	5,411	14,412	518,604
1982	152,586	227,419	170	45,319	122,619	65,781	7,829	4,784	626,510
1981	188,632	325,486	178	51,870	117,024	67,035	7,008	4,795	762,030
1980	213,131	390,105	665	59,519	163,564	98,034	8,066	4,382	937,466

(a) See Footnote (a) in distillate summaries above.

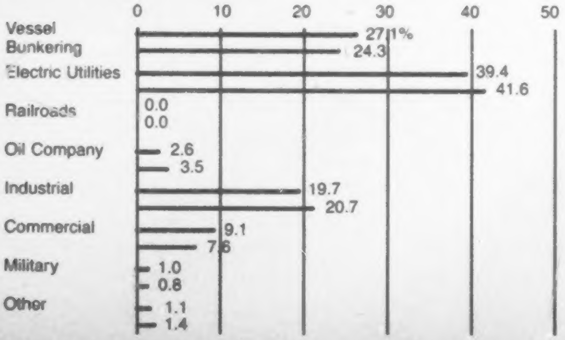
Distillate Deliveries by Use As Percent of Total

1987 = 1,086,419,000 bbl. 1986 = 1,063,740,000 bbl.

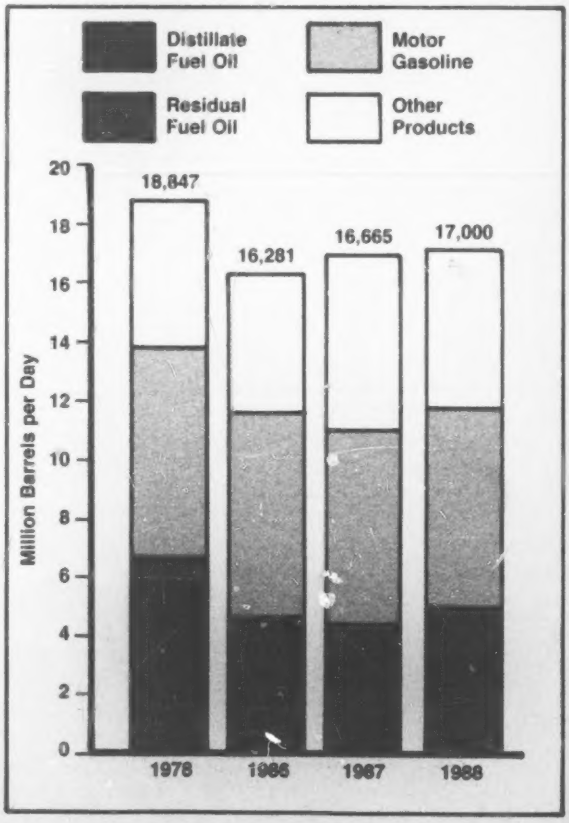


Residual Deliveries by Use As Percent of Total

1987 = 461,504,000 bbl. 1986 = 517,717,000 bbl.



Fuel Oil Demand vs. Other Products



Industry Profiles — 1988

Petroleum Products Sold (% of total volume)

	No. 2	No. 1	No. 4	Nos. 5&6	No. 2 for Diesel	Gasoline	Lpg/Lng	Other
New England	83.3	3.2	*	*	4.1	7.0	0.9	0.9
Mid-Atlantic	53.3	3.5	1.2	1.4	9.6	26.3	2.7	0.6
South	34.1	14.0	0.1	0.1	14.0	34.1	0.2	3.5
Midwest	37.7	5.8	*	*	26.3	27.4	2.7	1.9
West	36.4	6.0	0.6	*	23.0	30.1	1.6	2.0
All Sections	**49.0**	**6.5**	**0.4**	**0.3**	**15.4**	**25.0**	**1.6**	**1.8**

* - Less than .1%

Dealers Operating Bulkplants (%)

	With Bulk Plants	Bulk Plants Storing Other Prods
New England	56.7	64.7
Mid-Atlantic	69.8	90.0
South	80.8	85.7
Midwest	95.1	89.7
West	88.6	83.9
All Sections	**78.2**	**82.8**

Dealers Trading on the Oil Futures Market

New England	16.7
Mid-Atlantic	11.6
South	3.8
Midwest	9.8
West	*
All Sections	**8.4**

* - Less than .1%

Fuel Oil Dealers Who Sell, Install and/or Service Equipment (%)

New England	73.3
Mid-Atlantic	60.5
South	34.6
Midwest	31.7
West	34.3
All Sections	**46.9**

Average Size of Business

	Home Fuel Oil Accts	No. C/I Accts	Gals. of Distillate	Gals. of Resid	Gals. of Gas	No. of Empls
New England	1,411	145	1,698,704	212,500	942,000	8.5
Mid-Atlantic	2,279	222	2,289,166	575,348	1,827,884	15.7
South	1,243	268	1,432,600	I.D.	2,789,400	10.8
Midwest	750	167	1,737,813	481,000	2,293,636	11.5
West	1,924	218	2,432,500	I.D.	2,444,090	12.8
All Sections	**1,521**	**204**	**1,918,157.**	**253,770**	**2,059,402**	**11.9**

I.D. - Insufficient Data

Percent of Fuel Oil Dealers Who Sell, Install and/or Service Selected HVAC Equipment

RESIDENTIAL

	Oil Burners	Gas Burners	Domestic Hot Water	Boilers	Hydronic Systems
New England	92.0	24.0	88.0	88.0	48.0
Mid-Atlantic	92.3	30.8	80.8	84.6	73.1
South	100.0	66.7	83.3	50.0	50.0
Midwest	76.9	46.2	69.2	69.2	46.2
West	91.7	25.0	41.7	33.3	41.7
All Sections	**90.6**	**38.5**	**72.6**	**65.0**	**51.8**

COMMERCIAL

	Oil Burners	Gas Burners	Domestic Hot Water	Boilers	Hydronic Systems
New England	72.0	16.0	40.0	52.0	28.0
Mid-Atlantic	69.2	26.9	50.0	57.7	57.7
South	83.3	50.0	50.0	33.3	16.7
Midwest	46.2	30.8	38.5	30.8	7.7
West	41.7	8.3	41.7	33.3	33.3
All Sections	**62.5**	**26.4**	**44.0**	**41.4**	**28.7**

Source: All data on the four pages dealing with Fuel Oil Industry Profiles, Fuel Oil News, December 1988.

Computer Applications (% of marketers using EDP for listed operations)

	New England	Mid-Atlantic	South	Mid-West	West	All Sections
Accts Receivable/Billing	83.3	90.6	100.0	100.0	91.7	91.3
General Ledger	72.2	62.5	90.9	62.6	79.2	73.5
Accts Payable	38.9	59.4	81.8	69.6	75.0	64.9
Inventory Reconciliation	38.9	46.9	81.8	73.9	62.5	60.8
Excise Tax Reporting	27.8	65.6	63.6	73.9	45.8	55.3
Payroll	33.3	50.0	81.8	52.2	54.2	54.3
Delivery Scheduling	83.3	50.0	54.5	26.1	16.5	46.1
Word Processing	33.3	37.5	72.7	39.1	37.5	44.0
Fixed Assets Mgt.	16.7	21.9	63.6	30.4	33.3	33.2
Traking Supplier Costs	5.6	15.6	81.8	21.7	20.8	29.1
Pricing Analysis	*	15.6	45.5	13.0	12.5	17.3
Communication w/ Stations	*	6.3	*	17.4	29.2	10.6
Oil Price Info Services	*	12.5	*	8.7	12.5	6.7

* - Less than .1%

Trucks per Marketer

	---Avg. No.---		----Gallons----		
			Avg Size		
	Delivery Trucks	Trailers	Largest	Smallest	Opt Size Preferred
New England	3.4	0.4	2886	2150	2819
Mid-Atlantic	6.4	1.2	2931	2188	2829
South	4.7	1.0	2463	1838	2353
Midwest	3.9	0.7	2424	1785	2287
West	4.3	1.1	2756	1658	2567
All Sections	**4.5**	**0.9**	**2692**	**1924**	**2571**

Average Drop in Gallons

	275-gal. Tanks	550-gal. Tanks
New England	171.7	368.9
Mid-Atlantic	180.7	357.6
South	182.4	354.0
Midwest	202.4	385.7
West	179.2	356.9
All Sections	**183.3**	**364.6**

Engines by Type (% of readers)

	—Use—			—Prefer—	
	Diesel	Gasoline	Both	Diesel	Gasoline
New England	60.0	20.0	20.0	80.0	6.7
Mid-Atlantic	31.0	19.0	50.0	73.8	16.7
South	8.3	33.3	58.3	41.7	41.7
Midwest	22.5	35.0	42.5	60.0	25.0
West	8.8	32.4	58.8	58.8	23.5
All Sections	26.1	27.9	45.9	62.9	22.7

Truck Tanks by Type (% of readers)

	—Use—			—Prefer—	
	Steel	Aluminum	Both	Steel	Aluminum
New England	26.7	16.7	46.7	6.7	66.7
Mid-Atlantic	25.0	27.5	47.5	17.5	72.5
South	50.0	8.3	37.5	37.5	45.8
Midwest	75.0	10.0	10.0	32.5	32.5
West	47.1	5.9	44.1	17.6	50.0
All Sections	44.8	13.7	37.2	22.4	53.5

Average Age of Trucks

	Year of Oldest	Year of Newest
New England	1975.9	1983.4
Mid-Atlantic	1973.4	1983.7
South	1975.0	1983.6
Midwest	1976.4	1984.2
West	1970.6	1980.7
All Sections	**1974.3**	**1983.1**

Buying This Year (%)

	New Truck	New Tank
New England	23.3	23.3
Mid-Atlantic	32.6	18.6
South	28.0	20.0
Midwest	41.5	22.0
West	34.3	17.1
All Sections	**31.9**	**20.2**

Services Offered at Retail Outlets (% reporting such offerings)

	Check Cashing	Auto Service	Fast Food	TBA	Lottery Tickets	Beer/ Wine	Bakery Goods	Canned Goods	Cigs & Soda
New England	25.0	33.3	66.7	33.3	66.7	33.3	66.7	33.3	100.0
Mid-Atlantic	50.0	40.0	46.7	33.3	26.7	33.3	53.3	75.0	100.0
South	45.5	27.3	81.8	45.5	9.1	63.6	63.6	72.7	90.9
Midwest	47.4	36.8	47.4	42.1	36.8	36.8	63.2	52.6	89.5
West	52.9	70.6	58.8	52.9	35.3	41.2	29.4	41.2	76.5
All Sections	44.2	41.6	60.3	41.4	34.9	41.6	55.2	55.0	91.4

The Gas Threat

	% Losing Customers	Avg No. Lost
New England	50.0	7.5
Mid-Atlantic	92.3	16.0
South	57.1	12.3
Midwest	100.0	16.3
West	76.9	12.7
All Sections	**75.3**	**13.0**

Dealers Using Additives (%)

	Use Additives	Blend at Bulk Plant
New England	40.0	25.0
Mid-Atlantic	37.2	18.9
South	26.9	57.1
Midwest	61.0	28.0
West	22.9	50.0
All Sections	**37.6**	**35.8**

	Blend on Truck	Blend in Cust. Tanks
New Endland	16.7	66.7
Mid-Atlantic	25.0	56.3
South	28.6	57.1
Midwest	40.0	52.0
West	50.0	37.5
All Sections	**32.1**	**53.9**

The Service Department

	% Have Service Depart.	Avg. No. of Calls /Year	Value of Parts Inventory	% Service Depart. Profitable	No. of Techs.	No. of Service Vans
New England	76.7	1,281	$17,444	39.	2.8	2.9
Mid-Atlantic	60.5	2,880	25,103	61.5	5.4	5.5
South	30.8	1,769	21,667	50.0	4.0	3.8
Midwest	29.3	556	14,655	66.7	2.4	2.4
West	34.3	3.085	44,477	58.3	5.7	6.1
All Sections	**46.3**	**1,914**	**$24,729**	**55.1**	**4.1**	**4.1**

Annual Heating Oil Sales by Types of Customers (% of total customers served)

	Private Homes	Apts.	Educ.	Hospitals	Commercial	Indus.
New England	83.6	5.1	0.4	0.2	7.4	1.9
Mid-Atlantic	81.9	2.8	0.9	0.9	7.3	3.4
South	58.6	3.1	1.1	2.1	25.9	4.2
Midwest	76.8	2.7	3.6	1.5	7.3	5.1
West	80.0	1.4	0.6	*	6.5	3.3
All Sections	**76.2**	**3.0**	**1.3**	**0.9**	**10.9**	**3.6**

* - Less than .1%

Fuel Oil Dealers Who Sell, Install and/or Service Selected HVAC Equipment (%)

RESIDENTIAL

	Furnaces	Warm Air Systems
New England	96.0	76.0
Mid-Atlantic	88.5	69.2
South	100.0	66.7
Midwest	84.6	76.9
West	91.7	66.7
All Sections	92.2	71.1

	Central Air Conditioning	Heat Pump
New England	28.0	8.0
Mid-Atlantic	69.2	11.5
South	33.3	50.0
Midwest	53.8	15.4
West	16.7	16.7
All Sections	40.2	20.3

COMMERCIAL

	Furnaces	Warm Air Systems
New England	52.0	28.0
Mid-Atlantic	57.7	38.5
South	66.7	33.3
Midwest	53.8	23.1
West	58.3	25.0
All Sections	57.7	29.6

	Central Air Conditioning	Heat Pump
New England	16.0	*
Mid-Atlantic	26.9	11.5
South	33.3	50.0
Midwest	23.2	7.7
West	33.3	16.7
All Sections	26.5	17.1

* - Less than .1%

Average Number of Units Installed in Past 12 Months

	—RESIDENTIAL—			—COMMERCIAL—		
	Burners	Boilers	Furnace	Burners	Boilers	Furnace
New England	29.7	29.5	11.4	4.1	3.9	2.0
Mid-Atlantic	51.9	60.9	27.8	6.0	4.8	3.2
South	I.D.	I.D.	I.D.	I.D.	I.D.	I.D.
Midwest	11.8	2.5	14.8	0.5	0.1	1.1
West	55.0	2.6	60.5	*	*	*
All Sections	37.1	23.9	28.6	2.7	2.2	1.6

* - Less than .1%
I.D. - Insufficient Data

Average Storage Capacity in Gals.

	No. 2 Oil	Diesel	Gasoline	Lpg	Kerosene
New England	225,812	25,182	58,364	I.D.	4,727
Mid-Atlantic	134,345	23,909	66,857	30,000	29,000
South	50,950	37,857	73,429	27,000	37,500
Midwest	96,595	33,191	48,500	38,500	35,067
West	80,214	46,000	104,455	I.D.	16,286
All Sections	113,583	33,228	70,321	31,833	24,516

I.D. - Insufficient Data

Retail Gasoline Outlets and Volume

	Avg. No.	Less Than 50,000*	50,000 - 100,000.*	100,000 +*
New England	1.3	25.0	50.0	25.0
Mid-Atlantic	3.5	23.8	28.6	47.6
South	14.4	54.5	36.4	9.1
Midwest	2.1	58.3	20.9	20.8
West	2.4	52.6	31.6	15.8
All Sections	4.7	42.8	28.5	23.7

* Percent reporting such volume in gallons per month.

Top 10 Importers of Crude and Product—1988

CRUDE OIL AND PRODUCT

Company	Headquarters	Volume (000-b/d)	% of U.S. Total
Chevron	San Francisco	736	10.4%
Texaco	White Plains, N.Y.	485	6.8
Exxon	New York	433	6.1
Amoco	Chicago	321	4.5
Coastal	Houston	307	4.3
Shell	Houston	295	4.2
Amerada Hess	New York	258	3.6
Sun	Philadelphia	238	3.4
Koch	Wichita, Kan.	235	3.3
Citgo	Tulsa	231	3.3
Total Top 10		3.539	50.5
Total U.S.		7.084	

CRUDE OIL ONLY

Company	Headquarters	Volume (000-b/d)	% of U.S. Total
Chevron	San Francisco	673	13.3
Texaco	White Plains, N.Y.	443	8.8
Amoco	Chicago	308	6.1
Exxon	New York	301	6.0
Shell	Houston	273	5.4
Koch	Wichita, Kan.	211	4.2
U.S. Steel	Pittsburgh	203	4.0
Sun	Philadelphia	196	3.9
Citgo	Tulsa	194	3.8
Ashland	Ashland, Ky.	193	3.8
Total Top 10		2.995	59.4
Total U.S.		5.045	

FINISHED MOTOR GASOLINE

Company	Headquarters	Volume (000-b/d)	% of U.S. Total
Getty	Jericho, N.Y.	35	9.1
Northville	Melville, N.Y.	33	8.6
C. Itoh (Amer.)	Los Angeles	30	7.8
Amerada Hess	New York	28	7.3
S&W Berisford	Fort Lee, N.J.	28	7.3
Coastal	Houston	20	5.2
Citgo	Tulsa	19	4.9
Bear Sterns	New York	17	4.4
Mobil	New York	16	4.2
Texaco	White Plains, N.Y.	15	3.9
Total Top 10		241	62.8
Total U.S.		384	

DISTILLATES

Company	Headquarters	Volume (000-b/d)	% of U.S. Total
Amerada Hess	New York	46	16.3
Global Petro.	Waltham, Mass.	28	9.9
Northville	Melville, N.Y.	18	6.4
Scanoil	New York	14	5.0
Cumberland Farms	Canton, Mass.	13	4.6
Wyatt	New Haven, Conn.	13	4.6
Vitol S.A.	Stamford, Conn.	12	4.3
Astroline	Reading, Mass.	12	4.3
G.E. Warren	Framingham, Mass.	12	4.3
Cargill	Minneapolis	11	3.9
Total Top 10		179	63.5
Total U.S.		282	

RESIDUAL

Company	Headquarters	Volume (000-b/d)	% of U.S. Total
Amerada Hess	New York	97	16.4
Coastal	Houston	91	15.3
Clarendon Mktg.	Stamford, Conn.	39	6.6
Charter	Jacksonville, Fla.	34	5.7
Solomon	Greenwich, Conn.	31	5.2
Petro-Diamond	Irvine, Calif.	31	5.2
Chevron	San Francisco	29	4.9
Sun	Philadelphia	23	3.9
Clark Trading	Clayton, Mo.	22	3.7
Vitol S.A.	Stamford, Conn.	22	3.7
Total Top 10		409	70.7
Total U.S.		593	

JET FUELS

Company	Headquarters	Volume (000-b/d)	% of U.S. Total
Amerada Hess	New York	13	39.4
Cumberland Farms	Canton, Mass.	5	15.2
Mobil	New York	3	9.1
Western	Eden Prairie, Minn.	3	9.1
Texport	Houston	2	6.1
Chevron	San Francisco	1	3.0
Pacific Fuel	Los Angeles	1	3.0
Coastal	Houston	1	3.0
Amer. Airlines	Dallas/Ft. Worth	1	3.0
Solomon	Greenwich, Conn.	1	3.0
Total Top 10		31	93.9
Total U.S.		33	

Source: Energy Information Administration, Petroleum Supply Monthly and Annual, 1988

U.S. Dependency on Crude and Product Imports

(Add 000 b/d)

	Net imports						Net imports as % of U.S. Petroleum products supplied		
	Total from All countries	From Arab OPEC Members	% from Arab OPEC	From all OPEC Members	% from All OPEC	U.S. Petroleum Products Supplied	Total from All countries	From Arab OPEC Members	From all OPEC Members
1988 Average	6,353	1,826	28.7%	3,421	53.8%	17,170	37.0%	10.6%	19.9%
1st Qtr.	6,006	1,668	27.8	3,155	52.5	17,443	34.4	9.6	18.1
2nd Qtr.	6,240	1,640	26.3	3,355	53.8	16,533	37.7	9.9	20.3
3rd Qtr.	6,353	1,975	31.1	3,545	55.8	16,917	37.6	11.7	21.0
4th Qtr.	6,807	2,017	29.6	3,625	53.3	17,782	38.3	11.3	20.4
1987 Average	5,914	1,272	21.5	3,053	51.6	16,665	35.5	7.6	18.3
1st Qtr.	5,252	1,077	20.1	2,608	49.7	16,575	31.7	6.5	15.7
2nd Qtr.	5,514	968	17.6	2,734	49.6	16,455	33.5	5.9	16.6
3rd Qtr.	6,697	1,501	22.4	3,607	53.9	16,710	40.1	9.0	21.6
4th Qtr.	6,175	1,534	24.8	3,521	57.0	16,916	36.5	9.1	19.2
1986 Average	5,439	1,160	21.3	2,828	52.0	16,281	33.4	7.1	17.4
1985 Average	4,286	470	11.0	1,821	42.5	15,726	27.3	3.0	11.6
1984 Average	4,715	817	17.3	2,037	43.2	15,726	30.0	5.2	13.0
1983 Average	4,312	630	14.6	1,843	42.7	15,231	28.3	4.1	12.1
1982 Average	4,298	852	19.8	2,136	49.7	15,296	28.1	5.6	14.0
1981 Average	5,401	1,844	34.1	3,315	61.4	16,058	33.6	11.5	20.6
1980 Average	6,385	2,549	39.9	4,293	67.2	17,056	37.3	14.9	25.2
1979 Average	7,985	3,054	38.2	5,633	70.5	18,513	43.1	16.5	30.4
1978 Average	8,002	2,962	37.0	5,747	71.8	18,847	42.5	15.7	30.5
1977 Average	8,565	3,184	37.2	6,190	72.3	18,431	46.5	17.3	33.6
1976 Average	7,090	2,423	34.2	5,063	71.4	17,461	40.6	13.9	29.0
1975 Average	5,846	1,382	23.6	3,599	61.2	16,322	35.8	8.5	22.0
1974 Average	5,892	752	12.8	3,277	55.6	16,653	35.4	4.5	19.7
1973 Average	6,025	914	15.2	2,991	49.6	17,038	34.8	5.3	17.3

Source: Energy Information Administration, Monthly Energy Review, December 1988, published April 1989.

Role of Imports in Domestic Demand

(Add 000 bbl.)

	Total Imports			Domestic Demand for Refined Products			
	Total(a)	b/d Avg.	% Change	Total	b/d Avg.	% Change	Imports as % of U.S. Demand
1988(b)	2,625,445	7,193	7.7%	6,261,210	17,154	2.9%	41.9%
1987	2,437,470	6,678	7.3	6,082,725	16,665	2.3	40.1
1986	2,271,760	6,224	22.8	5,942,565	16,281	3.5	38.2
1985	1,849,455	5,067	(6.8)	5,739,990	15,726	—	32.2
1984	1,984,505	5,437	7.6	5,739,990	15,726	3.2	34.6
1983	1,843,615	5,051	(1.2)	5,559,315	15,231	(.04)	33.2
1982	1,866,245	5,113	(14.7)	5,583,040	15,296	(4.7)	33.4
1981	2,188,540	5,996	(13.2)	5,861,170	16,058	(5.9)	37.3
1980	2,521,785	6,909	(18.3)	6,225,440	17,056	(7.9)	40.5
1979	3,086,440	8,456	1.1	6,757,245	18,513	(1.8)	45.7
1977 (peak year)	3,214,555	8,807	20.1	6,727,315	18,431	5.3	47.8
1975	2,210,335	6,056	(0.9)	5,957,515	16,322	(2.0)	37.1
1973	2,283,493	6,256	32.0	6,317,303	17,308	5.7	36.1
1971	1,432,880	3,926	14.8	5,552,560	15,212	3.5	25.8
1970	1,248,062	3,419	8.0	5,364,473	14,697	4.0	23.3
1965	900,772	2,468	9.3	4,202,039	11,512	4.4	21.4
1960	664,111	1,815	2.0	3,585,820	9,797	2.8	18.5
1955	455,564	1,248	18.6	3,089,348	8,464	9.0	14.7
1950	310,261	850	31.8	2,392,974	6,556	13.0	13.0

(a) Crude oil and products but not crude for Strategic Petroleum Reserve; (b) Preliminary. Special note: Data for 1977 through 1985 are restated to reflect EIA information rather than other sources used in 1984.

Petroleum Products Imported

(Thousands of b/d)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1988												
Total Motor Gasoline	357	419	361	397	502	493	534	530	452	411	514	407
Leaded	7	14	10	9	37	18	8	7	4	2	13	11
Unleaded	317	351	308	340	378	406	453	458	399	361	438	330
Blending Components	33	54	43	48	87	69	73	65	49	48	63	66
Jet Fuel	82	67	97	86	104	74	81	103	61	138	79	161
Distillate Fuel Oil	355	330	243	208	228	209	205	270	292	324	308	399
Residual Fuel Oil	737	792	610	465	423	349	436	515	566	522	765	997
Other Petroleum Products(a)	750	694	628	768	726	704	731	717	666	728	862	676
1987												
Total Motor Gasoline	474	372	419	404	386	412	515	494	467	454	548	385
Leaded	37	16	35	12	22	37	69	22	51	26	75	27
Unleaded	356	293	329	362	332	348	383	373	370	330	409	292
Blending Components	81	63	55	30	32	27	63	98	46	97	64	65
Jet Fuel	43	67	83	65	67	66	73	54	83	83	55	68
Distillate Fuel Oil	222	253	297	192	203	265	381	222	222	237	187	378
Residual Fuel Oil	701	668	559	476	505	481	721	512	526	414	568	650
Other Petroleum Products(a)	529	759	657	643	572	738	604	661	769	739	697	714
1986												
Total Motor Gasoline	375	402	254	412	569	482	397	400	376	402	331	379
Leaded	57	77	27	71	147	81	37	30	46	49	49	37
Unleaded	276	257	197	220	324	311	300	273	257	273	231	282
Blending Components	43	68	30	121	99	90	59	97	73	80	52	59
Jet Fuel	27	35	29	43	54	85	121	85	60	38	59	48
Distillate Fuel Oil	325	169	217	147	149	169	313	370	262	243	254	339
Residual Fuel Oil	622	604	626	545	675	712	673	793	641	635	574	913
Other Petroleum Products(a)	751	498	597	607	703	765	711	661	720	691	759	610

(a) Includes kerosine, unfinished oils, motor gasoline blending components, liquefied petroleum gas and other oils.
Source: Energy Information Administration, Weekly Status Reports.

Crude and Product Imports by PAD (a)...

(Add 000 b/d)

	1988	1987	%chng. '88 vs.'87	1986	1985	1984
PAD 1*						
Total crude imports: 1,164,000-b/d.						
Total product imports: 1,506,000-b/d.						
Major Sources: Venezuela, Virgin Islands, Nigeria, United Kingdom.						
Leading Importers: Amerada Hess, Texaco, Sun, Chevron.						
Finished gasoline	351	324	(8)	251	298	254
Blending components	50	40	25	43	48	46
Unfinished oils	122	106	15	82	64	54
Liquefied Petro. gases	37	38	(3)	35	24	119
Distillates	270	221	22	216	177	251
Residual	556	516	9	593	449	598
Other products	120	90	33	92	99	122
Total products	1,506	1,335	13	1,312	1,159	1,345
Crude oil	1,164	1,109	5	1,056	977	944
Total crude oil and products	2,670	2,444	9	2,368	2,137	2,289

*PAD 1 includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virginia, North and South Carolina, Georgia and Florida.

	1988	1987	%chng. '88 vs.'87	1986	1985	1984
PAD 2*						
Total crude imports: 923,318-b/d.						
Total product imports: 128,000-b/d.						
Major Sources: Canada, Nigeria, Saudi Arabia, Mexico.						
Major Importers: Koch, Ashland, Shell, Apex.						
Finished gasoline	4	4	-	5	12	4
Blending components	1	(s)	-	1	(s)	(s)
Unfinished oils	3	(s)	-	0	8	10
Liquefied Petro. gases	89	76	17	982	119	134
Distillates	6	8	(25)	8	7	8
Residual	4	6	(33)	4	2	5
Other products	21	8	163	7	8	15
Total products	128	102	25	107	157	177
Crude oil	923	860	7	781	590	499
Total crude and products	1,051	962	9	888	746	676

*PAD 2 includes North and South Dakota, Nebraska, Kansas, Oklahoma, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, Ohio, Kentucky and Tennessee:(s) means less than 500-b/d.

	1988	1987	%chng. '88 vs.'87	1986	1985	1984
PAD 3*						
Total crude imports: 2,733,526-b/d.						
Total product imports: 416,000-b/d.						
Major Sources: Saudi Arabia, Mexico, Venezuela, Nigeria.						
Major Importers: Chevron, Texaco, USX (Marathon), Arco.						
Finished gasoline	9	15	(4)	7	20	15
Blending components	7	7	-	9	8	13
Unfinished oils	224	169	33	152	243	153
Liquefied Petro. gases	61	53	15	96	18	13
Distillates	2	6	(67)	1	2	3
Residual	22	25	(12)	33	48	84
Other products	91	96	(5)	94	74	80
Total products	416	372	12	393	409	354
Crude oil	2,734	2,417	13	2,037	1,419	1,747
Total crude and products	3,148	2,789	13	2,430	1,827	2,101

*PAD 3 includes Alabama, Arkansas, Louisiana, Texas and New Mexico.

(a) [illegible]

(Add 000 b/d)

	1988	1987	%chng '88 vs.'87	1986	1985	1984
PAD 4*						

Total crude imports: 63,764-b/d.
Total product imports: 18,597-b/d.
Major Sources: Canada.
Major Importers: Du Pont (Conoco), Cenex, Exxon, Flying J.

	1988	1987	%chng '88 vs.'87	1986	1985	1984
Finished gasoline	2	2	-	2	2	2
Blending components	0	0	-	(s)	0	0
Unfinished oils	0	0	-	0	0	0
Liquefied Petro. gases	12	12	-	12	15	15
Distillates	3	2	50	2	4	4
Residual	(s)	(s)	-	(s)	(s)	(s)
Other products	1	2	(50)	5	4	4
Total products	18	18	-	21	25	24
Total crude	63	64	(2)	54	39	33
Total crude and products	81	82	(1)	75	64	57

*PAD 4 includes Montana, Idaho, Wyoming, Utah and Colorado: (s) means less than 500-b/d.

PAD 5*

Total crude imports: 174,800-b/d.
Total product imports: 6[illegible],000-b/d.
Major Sources: Indonesia, Canada, People's Republic of China.
Major Importers: Chevron, Shell, Pacific, Unocal.

	1988	1987	%chng '88 vs.'87	1986	1985	1984
Finished gasoline	21	21	-	32	48	21
Blending components	1	14	(93)	15	12	23
Unfinished oils	2	4	(50)	5	2	13
Liquefied Petro. gases	10	11	(9)	13	10	14
Distillates	3	3	-	8	10	6
Residual	12	7	71	20	13	13
Other products	19	14	36	23	19	20
Total products	68	74	(8)	117	116	111
Total crude	175	189	(7)	182	177	203
Total crude and products	243	264	(8)	299	293	313

*PAD 5 includes Arizona, Nevada, California, Oregon, Washington, Alaska and Hawaii.

ALL PADS - U.S. Totals.

Total crude imports: 5,059,137-b/d.
Total product imports: 2,132,449-b/d
Major Sources: see related PAD tables in this section.
Major Importer: see related PAD tables in this section.

	1988	1987	%chng '88 vs.'87	1986	1985	1984
Finished gasoline	386	366	5	296	381	299
Blending components	58	61	(5)	68	67	83
Unfinished oils	351	280	25	239	318	231
Liquefied Petro. gases	210	190	11	241	187	195
Distillates	283	240	18	235	200	272
Residual	595	553	8	650	510	681
Other products	251	210	20	221	204	251
Total products	2,134	1,900	12	1,950	1,866	2,011
Total crude	5,059	4,639	9	4,111	3,201	3,426
Total crude and products	7,193	6,539	10	6,061	5,067	5,437

(a) The summaries at the top of each PAD are total figures for 1988, i.e. imports minus exports; the rest of the figures are total imports.
Source: Energy Information Administration, Petroleum Supply Monthly, Table 17, December 1988, published March 1989.

World Oil Production by Area

(Add 000 bbl.)

Year	United States	Canada	Latin America	Western Europe	Middle East	Africa	Asia-Pacific	Total Free World	Communist Nations	Total World
1988	2,968,910	—	—	—	—	—	—	—	—	—
1987	3,047,378	569,400	2,200,220	1,377,510	4,803,015	1,734,845	1,141,355	14,674,723	5,469,160	20,142,883
1986	3,168,252	537,280	2,190,000	1,395,030	4,639,150	1,819,890	1,176,760	14,926,362	5,402,730	20,329,092
1985	3,274,553	531,805	2,284,900	1,369,480	3,761,235	1,722,075	1,142,450	14,136,588	5,352,360	19,488,948
1984	3,249,696	516,426	2,315,682	1,331,874	4,128,114	1,713,978	1,164,978	14,420,748	5,332,620	19,753,368
1983	3,170,999	494,940	2,205,505	1,236,630	4,215,750	1,609,650	1,024,555	13,956,019	5,241,400	19,197,419
1982	3,156,715	452,965	2,255,355	1,085,145	4,581,480	1,622,790	961,410	14,116,160	5,278,995	19,395,155
1981	3,128,624	469,025	2,179,415	955,570	5,749,480	1,672,065	1,027,110	15,181,445	5,192,125	20,376,699
1980	3,146,365	521,184	2,036,058	893,406	6,735,498	2,226,378	1,000,278	16,559,304	5,206,350	21,760,680
1979	3,121,310	546,040	1,919,535	828,550	7,868,670	2,423,600	1,051,200	17,752,140	5,118,030	22,876,935
1978	3,175,927	483,260	1,736,427	643,149	7,884,927	2,233,791	1,037,520	17,195,001	4,963,250	22,158,251

Source: American Petroleum Institute Data Book, January 1989.

World Crude Oil Reserves by Area

(Add 000 bbl.)

Year (a)	United States	Canada	Latin America	Middle East	Africa	Asia-Pacific	Western Europe	Total Free World	Communist Nations	Total World
1988	28,416,000	6,825,000	114,332,000	564,680,300	55,249,700	19,353,700	22,447,800	810,144,500	79,200,000	889,344,500
1987	26,889,000	6,850,000	88,755,300	401,878,700	55,194,100	19,023,500	21,938,100	619,198,600	79,250,000	699,778,700
1986	28,416,000	6,500,000	84,242,400	398,075,710	56,734,050	18,885,800	26,412,600	619,196,500	81,370,000	700,566,560
1985	28,446,000	7,075,000	83,315,700	398,380,750	55,540,550	18,529,900	24,425,500	615,713,400	84,100,000	699,813,400
1984	27,735,000	6,730,000	81,675,900	370,100,800	56,970,000	18,989,400	23,019,940	585,137,600	84,600,000	669,737,600
1983	29,785,000	7,020,000	74,482,066	369,285,893	57,821,690	19,756,077	22,923,680	583,147,406	85,115,000	668,262,406
1982	29,426,000	7,300,000	84,982,270	362,839,950	56,171,630	19,150,800	24,634,500	584,505,150	85,845,000	670,350,150
1981	29,805,000	6,400,000	69,489,837	362,071,000	55,148,375	19,630,500	23,085,000	565,629,712	86,300,000	651,929,712
1980	27,051,289	6,800,000	56,472,500	361,947,300	57,072,100	19,355,200	23,476,400	522,174,789	90,000,000	642,174,789
1979	27,803,760	6,860,000	41,246,500	369,996,000	57,892,125	20,007,200	23,966,000	547,771,585	94,000,000	641,771,585

(a) As of Jan. 1 of each year.
Source: American Petroluem Institute Data Book, January 1989.

World Crude Oil Refining Capacity by Area

(Barrels per day)

Year	United States	Other Western Hemisphere	Total Western Hemisphere	Middle East	Africa	Asia-Pacific	Europe	Total Free World	Sino Soviet Bloc	Total World
1988	15,915,418	8,856,748	24,772,166	4,146,222	2,630,250	10,274,302	14,127,595	55,950,479	17,610,000	73,560,479
1987	15,565,513	8,676,740	24,242,253	3,862,622	2,523,563	10,400,180	13,929,325	54,957,943	17,610,000	72,567,943
1986	15,458,946	8,613,690	24,072,639	4,274,255	2,520,403	10,111,652	14,071,507	55,050,453	17,500,000	72,550,453
1985	15,658,769	9,457,706	24,857,706	4,052,673	2,447,156	10,393,562	15,654,622	57,664,488	17,500,000	75,164,488
1984	16,137,141	9,590,962	25,520,962	3,901,062	1,879,990	10,473,079	16,231,932	58,114,186	17,200,000	75,314,186
1983	16,859,337	9,873,816	26,773,153	3,685,333	1,822,105	10,902,204	17,124,989	60,327,784	16,873,000	77,200,784
1982	17,889,734	10,720,056	28,609,789	3,312,152	1,761,870	10,966,825	19,444,519	64,095,155	16,533,000	80,628,155
1981	18,620,520	10,716,881	29,337,401	3,729,646	1,697,858	10,554,691	20,205,799	65,524,895	16,036,500	81,561,395
1980	17,988,121	10,683,671	28,671,792	3,518,080	1,666,108	10,386,375	20,243,747	64,486,102	15,346,000	79,832,102
1979	17,440,885	10,273,030	27,713,915	3,546,029	1,667,608	10,284,966	20,328,614	63,541,132	14,748,000	78,289,132

Source: American Petroleum Institute Data Book, January 1989.

World Natural Gas Production by Area

(Add 000,000 cubic feet)

Year	United States	Canada	Latin America	Middle East	Africa	Asia-Pacific	Western Europe	Total Free World	Communist Nations	Total World
1987	17,150,000	3,472,700	3,354,580	2,624,100	2,025,700	3,797,600	7,043,900	39,468,500	28,742,500	68,211,000
1986	16,791,000	3,168,300	3,413,600	1,822,800	1,661,800	3,320,900	6,519,600	36,698,000	27,088,200	65,786,200
1985	17,197,999	3,196,300	3,445,300	1,668,300	1,720,700	2,924,500	6,827,200	36,990,299	25,453,400	62,443,699
1984	18,299,638	2,651,800	3,451,800	1,533,400	1,629,100	2,530,700	6,795,400	36,821,838	23,272,100	60,093,938
1983	16,822,144	2,414,100	3,340,500	1,633,000	1,143,800	2,187,700	6,383,400	33,924,644	21,383,000	55,307,644
1982	18,519,675	2,546,100	3,091,500	1,799,700	1,168,300	2,176,600	6,142,100	35,424,575	20,258,000	55,682,575
1981	19,955,823	2,623,000	3,227,000	1,542,000	1,947,000	2,765,000	6,906,000	39,187,701	19,210,000	58,397,701
1980	20,179,724	2,668,300	3,297,500	1,221,300	884,700	2,558,400	6,668,700	37,677,687	21,069,900	58,747,587
1979	20,471,260	3,646,500	2,610,000	1,624,700	1,027,900	1,827,900	6,866,800	38,075,080	19,591,400	57,666,480
1978	19,974,033	3,128,056	2,012,912	1,579,478	1,117,416	1,469,154	6,649,855	35,930,904	15,818,398	51,749,302

Source: American Petroleum Institute Data Book, January 1989.

Crude Oil Reserves in 20 Leading Nations

(Annually as of Jan. 1)

	Reserves (Add 000 bbl.)		% of Free World Reserves		% of Total World Reserves	
Nation	**1988**	**1987**	**1988**	**1987**	**1988**	**1987**
Saudi Arabia	166,980,000	166,573,900	20.6%	26.9%	18.8%	23.9%
Iraq	100,000,000	47,100,000	12.3	7.6	11.2	6.7
Iran	92,850,000	48,800,000	11.4	7.9	10.4	7.0
Abu Dhabi	92,205,000	31,000,000	11.4	5.0	10.4	4.4
Kuwait	91,920,000	91,916,000	11.3	14.9	10.3	13.1
U.S.S.R.	59,000,000	59,000,000	7.3	9.5	6.6	8.4
Venezuela	56,300,000	25,000,000	6.9	4.0	6.3	3.5
Mexico	48,610,000	54,653,000	6.0	8.8	5.5	7.8
United States	27,256,000	26,889,000	3.4	4.3	3.1	3.8
Libya	21,000,000	21,300,000	2.6	3.4	2.4	3.0
China	18,400,000	18,400,000	2.3	3.0	2.1	2.6
Nigeria	15,980,000	16,000,000	2.0	2.6	1.8	2.3
Norway	14,800,000	10,500,000	1.8	1.7	1.7	1.6
Algeria	8,500,000	8,800,000	1.4	1.4	1.0	1.3
Indonesia	8,400,000	8,300,000	1.4	1.3	0.9	1.2
Canada	6,825,000	6,850,000	0.8	1.1	0.8	1.0
United Kingdom	5,200,000	9,000,000	0.6	1.5	0.6	1.3
Egypt	4,300,000	3,600,000	0.5	0.6	0.5	0.5
India	4,250,000	4,202,000	0.5	0.7	0.5	0.6
Oman	4,012,000	4,032,000	0.5	0.7	0.5	0.6
Total Free World	**810,144,510**	**620,258,600**				
Total World	**889,340,000**	**699,778,600**				

Source: American Petroleum Institute, Basic Data Book, Vol. 3, January 1989; percentage relationships by NPN.

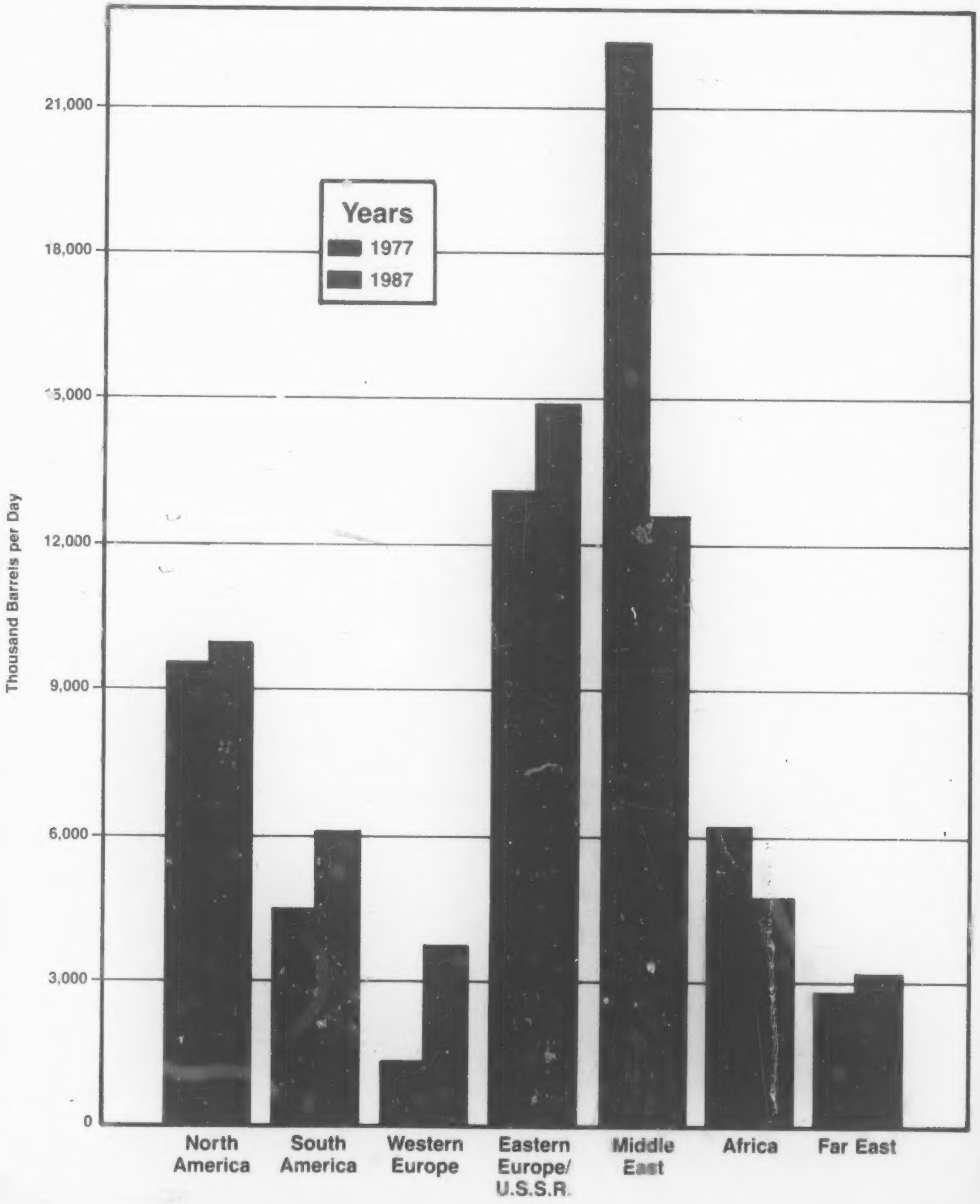
Crude Oil Production in 20 Leading Nations

(Annually as of Jan. 1)

	Production (Add 000 bbl. and b/d)				% of Free World Production		% of Total World Production	
	1987		1986					
Nation	Total	b/d	Total	b/d	1987	1986	1987	1986
U.S.S.R.	4,354,450	11,930	4,292,210	11,754	29.3%	28.7%	21.4%	21.1%
United States	3,047,378	8,349	3,168,852	8,680	20.5	22.2	15.0	15.6
Saudi Arabia	1,464,455	4,012	1,795,070	4,918	9.9	12.0	7.2	8.8
China	953,745	2,613	953,745	2,613	6.4	6.4	4.7	4.7
Mexico	927,465	2,541	887,315	2,431	6.2	5.9	4.6	4.4
Iran	894,616	2,451	710,290	1,946	6.0	4.8	4.4	3.5
United Kingdom	853,370	2,338	915,420	2,508	5.7	6.1	4.2	4.5
Iraq	757,740	2,076	626,340	1,716	5.1	4.2	3.7	3.1
Venezuela	573,780	1,572	575,240	1,576	3.9	3.9	2.8	2.8
Canada	569,400	1,560	537,280	1,472	3.8	3.6	2.8	2.6
United Arab Emirates	530,710	1,454	485,815	1,331	3.6	3.3	2.6	2.3
Nigeria	469,390	1,286	533,265	1,461	3.2	3.6	2.3	2.6
Indonesia	434,715	1,191	461,360	1,264	2.9	3.1	2.1	2.3
Kuwait	377,410	1,034	490,560	1,344	2.5	3.3	1.8	2.4
Norway	344,195	943	306,965	841	2.3	2.1		1.5
Egypt	277,040	759	266,745	813	1.9	2.3	1.7	1.3
Algeria	231,775	635	244,915	671	1.6	1.6	1.1	1.2
India	222,285	609	228,125	625	1.5	1.5	1.1	1.1
Brazil	206,590	566	209,873	575	1.4	1.4	1.0	1.0
Oman	203,305	557	—	—	1.4	—	1.0	—
Total Free World	**14,858,413**	**40,708**	**14,926,362**	**40,894**				
Total World	**20,345,823**	**55,742**	**20,392,092**	**55,696**				

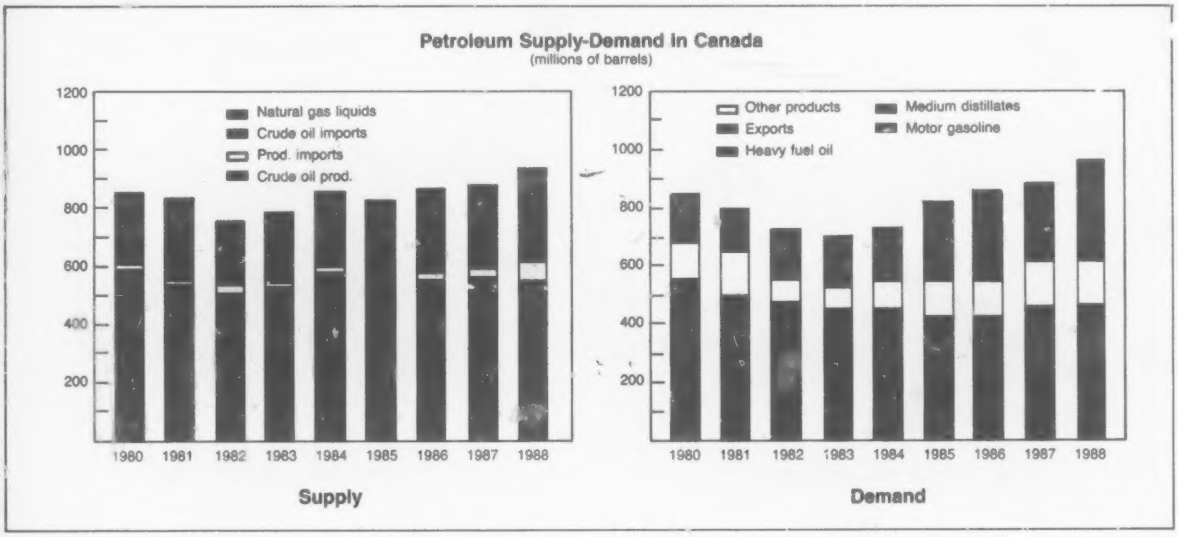
N.B. Libya was ranked 15th in 1986 but was not reported or included in the 1987 totals.
Source: American Petroleum Institute, Basis Data Book, January 1989; percentage relationships by NPN.

World Crude Oil Production, 1977 and 1987



Source: American Petroleum Institute, Petroleum Data Book, Vol. IX, No. 1, published in January 1989

Canadian Oil Market on Upswing



Petroleum Supply-Demand In Canada
(millions of barrels)

The petroleum supply-demand situation in Canada took on a rosier hue last year, with increases shown in every category of production and consumption. In fact, according to data provided by Statistics Canada, supply and demand levels both reached the highest point of the decade of the 1980s.

On the supply side, the total of 940-million bbl. (149-million cubic meters) in 1988 for crude oil and NGL production and crude and product imports exceeded the 1987 total by 60-million bbl., an increase of almost 7%. At the consumption end, demand—including gasoline, middle distillates, heavy fuel oil, exports and other products—soared 9.3% in 1988 to 972-million bbl. Canada, too, became a stronger net exporter of oil products last year, with exports exceeding imports by about 150-million bbl.

Refined product sales (see table below) kept pace with this overall growth pattern, with increases in all categories of products except lubes and greases and aviation gasoline. Big increases were shown in diesel and heavy fuel.

Refined Product Sales in 1988

(Cubic Meters)*

	Aviation Gas	Motor Gas	Aviation Turbine	Kerosene	Diesel	Light Fuel	Heavy Fuel	Lubes & Greases
Newfoundland	4,936	594,611	290,131	35,652	492,349	274,076	513,223	12,086
Prince Edward Island	2,083	180,062	5,540	12,923	56,084	151,138	41,344	2,067
Nova Scotia	1,259	1,147,829	182,184	60,248	615,753	860,101	982,012	22,794
New Brunswick	2,706	968,44[illegible]	34,474	27,733	510,552	443,418	1,941,437	21,731
Quebec	21,254	7,117,660	1,038,632	172,936	2,997,126	2,226,447	2,178,767	153,460
Ontario	41,181	12,685,512	1,665,417	148,792	4,466,249	2,008,862	1,407,788	414,879
Manitoba	19,461	1,407,709	188,626	39,671	879,618	57,693	64,427	31,585
Saskatchewan	11,312	1,717,069	83,076	59,142	1,199,302	71,517	32,051	40,510
Alberta	16,650	4,612,756	677,758	39,938	2,688,679	64,481	34,521	102,048
British Columbia	34,858	3,606,795	818,667	81,200	2,576,319	403,471	921,748	103,065
Yukon	3,771	58,875	4,890	12,047	68,479	30,619	0	1,068
Northwest Territories	6,555	41,026	78,667	51,924	117,925	62,252	7,695	1,622
Total 1988	**166,026**	**34,138,349**	**5,068,062**	**742,206**	**16,668,435**	**6,654,075**	**8,125,013**	**906,915**
Total revised 1987	**177,230**	**33,224,265**	**4,658,101**	**718,880**	**15,761,850**	**6,290,282**	**6,874,463**	**1,029,370**

*Cubic meters × 6.2883 = barrels
Source: Statistics Canada

Canadian Oil Companies:

Company	Total branded retail outlets	Number of Provinces where marketed	BRANDED SERVICE STATIONS Supplied directly	Supplied through jobbers & commission agents	Lessee/Dealer operated	Salary operated	Commission operated	Full-serve only	Self-serve only
C Corp. Inc.	213	2	64	0	0	0	64	61	—
C. Corp (Ontario) Inc.	94	2	—	—	18	3	48	58	9
Canadian Tire Petroleum Div.	150	6	150	—	—	150	—	—	—
Chevron Canada Ltd.	283	1	176	170	—	107	—	175	100
Esso Petroleum Canada (a)	3,050	12	2,000	1,050	2,650	100	300	2,345	700
Fas Gas Oil Ltd.	96	2	94	—	—	—	94	92	2
Federated Co-operatives Ltd. (b)	358	4	358	0	—	338	12	300	58
Husky Oil Marketing Co.	336	6	336	—	336			249	87
Les Petroles Calex Ltée.	47	2	47	—	—	—	47	44	3
Mohawk Oil Co. Ltd.	397	5	265	132	245	107	45	220	140
Petro-Canada Products	3,429	12	—	—	2,584	150	695	2,416	938
Shell Canada Ltd. (e)	3,500	12	2,268	1,057	2,656	185	484	2,677	578
Sunoco Inc. (b)	631	3	631	0	—	—	—	—	—
Sunys Petroleum Inc.	226	2	226	—	80	1	145	196	30
Texaco Canada (b)	1,818	10	—	—	928	0	890	1,218	580
Turbo Resources Ltd.	282	6	256	26	70	0	212	277	5
Ultramar Canada Inc.	1,396	6	—	—	1,396	—	—	1,170	203

(a) Did not respond; data is from 1986.
(b) Did not respond; data is from 1987.
(c) Includes Beaver—not a subsidiary, but Shell Canada's wholly-owned 'Pribrand' retail outlets.
(d) Includes terminals.
(e) Company estimates.

Brand Names of Gasoline and Motor Oils

C. Corp. Inc.

Gasoline	Motor Oil
Top Valu	Top Valu
Winks Express	
Shell	
Sunoco	
Petro Canada	
Esso	
Ultramar	
Texaco	

Chevron Canada Ltd.

Gasoline	Motor Oil
Chevron (r,ur)	Chevron Special
Chevron Supreme (up)	Chevron Supreme
	Chevron Delo
	Chevron Custom

Esso Petroleum Canada

Gasoline	Motor Oil
Esso (r)	HD
Esso 2000 (ur)	HDX
Esso Extra Unleaded (up)	Protec Extra
	Protec Ultra

Fas Gas Oil Ltd.

Gasoline	Motor Oil
Fas Gas (r,ur,up,diesel)	Hi-Performance 5000
Bi-Lo (r,ur,up)	Hi-Performance 6000

Federated Co-operatives Ltd.

Gasoline	Motor Oil
Sonic (r,ur,p)	Sonic Silver
Tempo (r,ur,p)	Sonic Gold

Husky Oil Marketing Co.

Gasoline	Motor Oil
Husky (r,ur,up,d)	Husky Heavy Duty
	Husky Heavy Duty Special
	Husky Stratolube
	Husky Stratoplus
	Husky Superlube
	Husky Super Duty

Mohawk Oil Co. Ltd.

Gasoline	Motor Oil
Mohawk (r,ur,up)	Mohawk 10W30
Speedway (r,ur,up)	Mohawk Multigrade
Payless (r,ur,up)	Mohawk Premium
	Mohawk Heavy Duty Plus
	Duckhams
	Canadian Pride

Petro-Canada Products Inc.

Gasoline	Motor Oil
Leaded Regular Plus	Multi Motor Oil/Premium Turbo Tested M.O.
Unleaded Plus	Super Plus 15W40
The New 1 Super Unleaded	

Shell Canada Ltd.

Gasoline	Motor Oil
Shell (r,ur,up)	Shell X100
Beaver (r,ur,up)	Shell TLO
	Shell Extrema
	Rotella

Sunoco, Inc.

Gasoline	Motor Oil
Sunoco Regular (r)	CAM2
Sunoco ½&½ Leaded (r,up)	
Sunoco Premium Leaded (r,up)	
Sunoco Regular Unleaded (ur)	
Sunoco ½&½ Unleaded (ur,up)	
Sunoco Premium Unleaded (up)	
Pronto (r,ur,up)	

Sunys Petroleum Inc.

Gasoline	Motor Oil
Sunys (r,ur,p,diesel)	Sunys
Econobec (r,ur,p,diesel)	

Texaco Canada Ltd.

Gasoline	Motor Oil
Texaco (r,ur,up)	Havoline Supreme
	Havoline
	URSA Super Plus Multigrade
	URSA Super Plus Single-grade

Turbo Resources Ltd.

Gasoline	Motor Oil
Turbo	Flo-Rite
	Turbo
	Red Ram

Ultramar Canada Inc.

Gasoline	Motor Oil
Ultramar	Ultralube
Sterling	Ultralube Super
XL	Ultralube Super Plus
Gillies Guy	Champion
Champion	

KEY
Gasoline:
(r) Regular
(p) Premium
(ur) Unleaded
(up) Unleaded Premium
Motor Oils: Brand names are listed lowest-price grade first.

How Distribution is Organized

	BRANDED JOBBERS/COMMISSION AGENTS				BULK PLANTS				TERMINALS			
		SELLING ...				COMPANY OPERATED ...				COMPANY OPERATED ...		
Full-serve/ Self-serve	Total	Gasoline only	Fuel Oil only	Gasoline and Fuel Oil	Total	Salary operated	Commission operated	Jobber operated	Total	Salary operated	Commission operated	Jobber operated
3	200	200	0	0	0	0	0	0	0	0	0	0
2	—	43	—	—	0	—	—	—	0	—	—	—
—	0	—	—	—	—	—	—	—	—	—	—	—
8	—	—	—	47	—	—	[illegible]	0	—	3	—	0
5	550	0	0	550	600	0	600	0	0	0	0	0
—	—	—	—	96	0	0	0	0	1	1	0	0
0	12	12	—	—	300	295	5	0	1	1	—	—
—	336	—	—	—	—	—	—	—	—	—	—	—
—	47	47	—	—	0	0	0	0	1	1	0	0
37	49	45	—	4	5	—	—	5	—	—	—	—
75	308	—	—	308	401	32	369	0	34	25	9	0
70	274	—	—	274	470(d)	25	270	6				
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
20	130	0	0	130	240	229	11	0	27	27	0	0
0	52	0	0	52	32	0	29	3	0	0	0	0
23	—	—	—	—	—	—	—	—	—	—	—	—

Branded Retail Outlets in Canada

Company	Total branded retail outlets	Number of Provinces	Newfoundland	Nova Scotia	New Brunswick	Quebec	Ontario	Prince Edward Island	Manitoba	Saskatchewan	Alberta	British Columbia	Northwest Territories	Yukon
C. Corp. Inc.	213	2	—	—	—	137	76	—	—	—	—	—	—	—
C. Corp (Ontario) Inc.	94	2	—	—	—	2	92	—	—	—	—	—	—	—
Canadian Tire Petroleum Division	150	6	—	—	3	27	102	—	4	2	12	—	—	—
Chevron Canada Ltd.	283	1	—	—	—	—	—	—	—	—	—	283	—	—
Esso Petroleum Canada (a)	3,050	12	—	—	—	—	—	—	—	—	—	—	—	—
Fas Gas Oil Ltd.	96	2	—	—	—	—	—	—	—	16	80	—	—	—
Federated Co-operatives Ltd. (b)	358	4	—	—	—	—	—	—	60	220	50	28	—	—
Husky Oil Marketing Co.	336	6	—	—	—	—	46	—	27	45	126	86	—	6
Les Petroles Calex Ltée	47	2	—	—	—	44	3	—	—	—	—	—	—	—
Mohawk Oil Co. Ltd.	397	5	—	—	—	—	3	—	28	39	202	125	—	—
Petro-Canada Products	3,429	12	28	110	83	684	1,238	12	217	261	396	400(c)	—	—
Shell Canada Ltd. (e)	3,500(d)	12	1	102	121	858	1,193	27	299	246	304	335	9	5
Sunoco Inc. (b)	631	3	—	—	—	155	474	—	—	—	2	—	—	—
Sunys Petroleum Inc.	226	2	—	—	—	30	196	—	—	—	—	—	—	—
Texaco Canada (b)	1,818	10	9	86	111	507	623	13	81	94	179	115	—	—
Turbo Resources Ltd.	282	6	—	—	—	—	1	—	16	70	157	37	2	—
Ultramar Canada Inc.	1,396	6	244	81	32	875	149	15	—	—	—	—	—	—

(a) Did not respond; data is from 1986.

(b) Did not respond; data is from 1987.

(c) Includes outlets in Yukon and Northwest Territories.

(d) Includes Beaver—not a subsidiary, but Shell Canada's wholly-owned 'Pribrand' retail outlets.

(e) Company estimates.

Gasoline Shares by Key Categories—1988

In 1985, a new study on Canadian retail gasoline market shares was completed by MPSI Americas Inc., Tulsa, Okla., a company specializing in international computer software and information services in addition to market research and planning. Now, MPSI has released its 1988 study.

Data for both 1988 and 1987 are presented in the table below to provide an overview of trends within the various gasoline marketing segments. This year, average gallonage totals are shown in both liters and U.S. gallons. Refer to the companion market share study for the U.S. on page 000 for a comparison between the two countries.

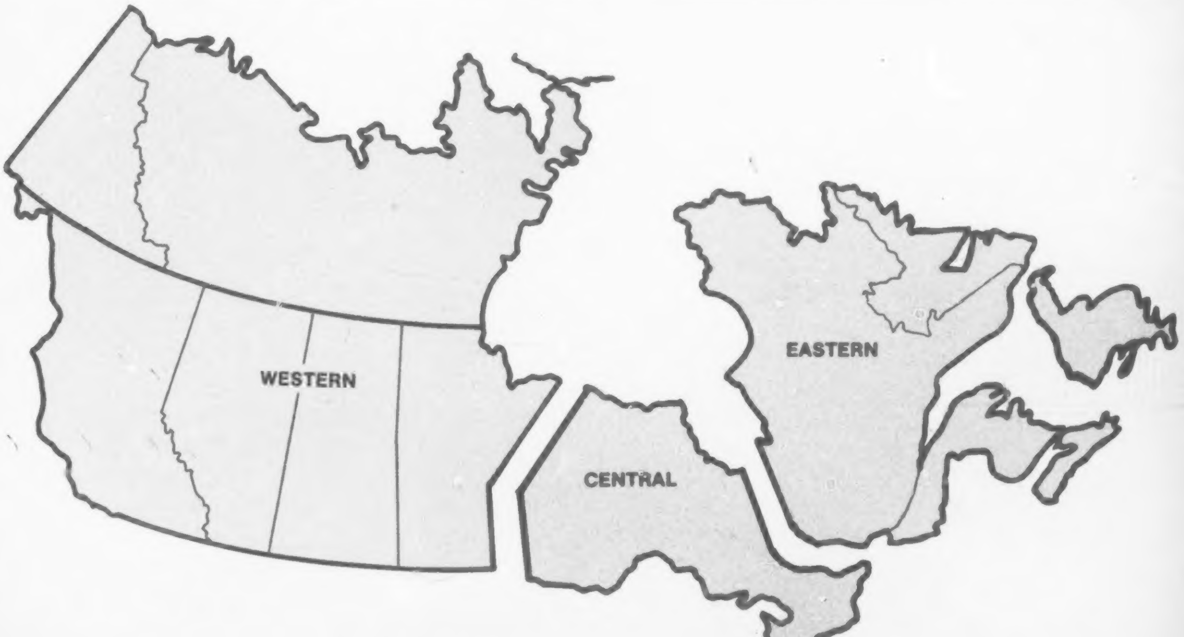
The study presents, on both a national and regional basis, market shares and percentages of outlets for conventional service stations, gasoline pumpers, convenience stores that sell gasoline, plus a general category of "others" including car washes, garages and other facilities where gasoline is secondary.

This study is concentrated in Canada's metropolitan areas, where most gasoline is marketed. It does not count rural and highway vendors which, while important to the industry, do not add significantly to overall consumption data.

Regional and National Market Shares

	Service Stations		Pumpers		Convenience Food Stores		Others		Total	
	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Eastern Region										
• % of Outlets	47.4	51.4	26.3	25.7	10.5	7.3	15.8	15.6	100.0	100.0
• % of Volume	44.0	47.0	40.6	39.7	7.9	6.0	7.5	7.3	100.0	100.0
• Avg. Monthly Volume (Liters)*	133.918	126.765	222.573	214.334	107.498	113.205	67,983	64.248	144.013	138,500
• Avg. Monthly Volume (U.S. gal.)	35.428	33.536	58.882	56.702	28.439	29.948	17.985	16.997	38.097	36,640
Central Region										
• % of Outlets	50.6	53.5	34.5	31.1	3.0	1.8	11.9	13.6	100.0	100.0
• % of Volume	46.6	49.2	46.8	43.6	2.0	1.3	4.6	5.9	100.0	100.0
• Avg. Monthly Volume (Liters)*	198.345	189.228	292.760	289.135	142.705	141,957	82.452	89.500	215.350	205,846
• Avg. Monthly Volume (U.S. gal.)	52.472	50,060	77,450	76,491	37,753	26,455	21,813	23.677	56.971	54,457
Western Region										
• % of Outlets	37.1	40.8	44.3	40.6	8.0	5.6	10.6	13.0	100.0	100.0
• % of Volume	35.7	38.1	56.2	53.7	4.5	3.0	3.6	5.2	100.0	100.0
• Avg. Monthly Volume (Liters)*	186.768	209.373	246.957	267.955	108,643	109.752	67.027	79.114	194.454	210.619
• Avg. Monthly Volume (U.S. gal.)	49.410	55.390	65.333	70.888	28.741	29.035	17.732	20.930	51.442	55.719
Total Canada										
• % of Outlets	45.8	49.3	34.3	31.7	7.0	4.8	12.9	14.2	100.0	100.0
• % of Volume	42.7	45.2	47.9	45.6	4.3	3.1	5.1	6.1	100.0	100.0
• Avg. Monthly Volume (Liters)*	172.837	170.380	258.044	260,090	113.672	116.825	72.869	77.248	185.073	182,985
• Avg. Monthly Volume (U.S. gal.)	45.724	45,074	68,266	68.807	30.072	30.906	19.278	20.436	48.961	48,409

*1 gal. = 3.78 Liters.
Source: MPSI Americas, Inc., Tulsa, Oklahoma



Canadian Statistics

Motor Vehicle Registrations 1987

	Passenger Cars	Trucks	Buses	Motorcycles	Others	Total Vehicles	Trailers	Off-road		Licensed gasoline outlets
								Snowmobiles	Other	
Newfoundland	184,553	82,723	2,081	10,486	6,949	286,792	30,661	65,358	13,320	..
Prince Edward Island	60,169	19,159	425	2,119	490	82,362	1,344	..	..	..
Nova Scotia	335,196	134,963	1,565	17,693	3,532	492,949	39,860	6,870	5,879	..
New Brunswick	292,736	126,677	..	10,970	6,252	436,635	55,765	..	22,326	1,213
Quebec	2,682,173	446,630	14,011	89,442	85,216	3,317,472	663,845	83,397	251,586	6,189
Ontario	4,402,704	998,473	27,110	138,797	5,843	5,572,927	974,467	263,681	62,038	7,257
Manitoba	540,304	219,586	161	16,798	17	776,866	98,436	38,310	206	..
Saskatchewan	515,271	278,344	4,518	6,457	495	805,085	101,753	8,952	..	..
Alberta	1,151,276	554,314	9,040	42,490	939	1,758,059	346,614	14,237	18,693	..
British Columbia	1,581,831	632,097	..	76,807	..	2,290,735	265,431	50,840	..	..
Yukon	8,156	13,604	205	710	..	22,675	4,576	428	..	..
Northwest Territories	18,137	1,927	105	1,553	64	21,831	5,213	..	788	..
Canada	**11,772,506**	**3,508,497**	**59,266**	**414,322**	**109,797**	**15,864,388**	**2,587,965**	**532,073**	**374,836**	**14,659**

NB: e estimated
"Off-road other" includes farm tractors, construction equipment etc.
.. figures not available
Source: All tables this page from Statistics Canada.

Automobiles Per Household 1988

estimates in thousands

	Households	Total Households with Vehicles	Households with automobiles				without autos	Vans or trucks	
			Total	1 auto	2 autos	3 or more autos		with 1	Households with 2 or more
Newfoundland	166	129	108	84	20	4	58	49	—
Prince Edward Island	44	39	36	26	8	—	8	13	—
Nova Scotia	309	251	230	173	48	9	79	68	11
New Brunswick	238	202	183	135	43	6	55	73	10
Quebec	2,416	1,933	1,834	1,310	454	70	583	334	19
Ontario	3,341	2,789	2,672	1,725	761	186	670	603	69
Manitoba	380	311	287	201	68	18	92	101	17
Saskatchewan	358	317	289	202	70	17	69	126	36
Alberta	848	753	693	437	201	54	155	264	79
British Columbia	1,145	986	911	628	226	57	234	333	38
Canada 1988	**9,244**	**7,710**	**7,242**	**4,919**	**1,900**	**423**	**2,002**	**1,964**	**283**

New Motor Vehicle Sales

	Total new motor vehicles	Passenger cars	Comm. vehicles	Cars			Commercial Vehicles	
				North America	Japan	Other Countries(1)	North America	Other Countries
1988	1.565.[illegible]	[illegible]56.310	509.191	724.733	243.835	87.742	459.777	49.414
1987	1.533.637	1.065.093	468.544	700.930	243.288	120.875	368.423	51.355
1986	1.515.920	1.095.313	420.607	761.169	203.304	130.840	417.189	52.184

(1) Excludes Japanese and North American manufactured vehicles

Factory Sales of Auto Batteries

	1988	$
Replacement:		
Automotive & Heavy-duty Commercial	3.329.347	170.333.355
Other batteries (incl marine, recreational vehicle and railroad diesel starting)	136.004	7,720.918
For Direct Motive Power:		
Large cells (incl railroad & fork lift)	193,73[illegible]	26,64[illegible]65
Light Industrial (incl golf cart, wheel chair and sweeper)	19,935	1,904,[illegible]61

NB: Publishing method changed. Corresponding 1987 data not available.

Drivers' Licenses 1987

	Operators (drivers & chauffeurs)	Temporary (instructor permits)
Newfoundland	295.560	7.402
Prince Edward Island	80.848	..
Nova Scotia	547.123	15.841
New Brunswick	428.594	25.140
Quebec	3.848.521	..
Ontario	5.978.105	..
Manitoba	755.877	..
Saskatchewan	651.609	..
Alberta	1.804.446	104.804
British Columbia	2.497.626	..
Yukon	24.354	1.078
Northwest Territories	14.332	..
Canada	**16,926,995**	**154,265**

.. Figures not available.

Principal Heating Fuels in 1988

(000 Households)

	Oil	Piped Gas	Bottled Gas	Electricity	Other	Wood	Total Households
Newfoundland	58	—	—	69	—	38	166
Prince Edward Island	33	—	—	—	—	9	44
Nova Scotia	179	—	6	71	6	47	309
New Brunswick	80	—	—	109	—	48	238
Quebec	552	175	—	1,589	15	84	2,416
Ontario	588	2,006	18	634	—	94	3,341
Manitoba	19	218	—	129	—	12	380
Saskatchewan	29	297	5	20	—	...	358
Alberta	15	798	14	10	4	...	848
British Columbia	151	612	..	309	—	60	1,145
Canada	**1,704**	**4,106**	**61**	**2,941**	**30**	**403**	**9,244**

NB: Data from a sample survey only
—amount too small
... figures not applicable
"Other" includes Coal and Coke.

Canadian Pump Prices More Than 50% Higher Than U.S. Postings

Canada is a land of many wonders, but low- priced gasoline is not one of them. According to the latest data available on average gasoline prices—from a January 1988 survey—Canadian motorists were shelling out 52.6¢ / gal. (calculated in U.S. currency) more at the pump than their American neighbors across the border. That's almost 56% higher than the average U.S. pump price at the time.

Approximately 73% of this price spread—about 38.4¢/gal.—was devoured by Canadian federal and provincial taxes. Those taxes, totaling 63¢/gal. (U.S.) in January 1988, devoured about 43% of the $1.47 average price of a Canadian retail gallon.

By contrast, the average sum of state and federal taxes on a U.S. gallon was 24.6¢ in January, according to the monthly Petroleum Product Market Report published by Energy, Mines and Resources (EMR) Canada. The pricing data is from Statistics Canada monthly price surveys. Prices shown in the adjacent bar chart have been converted from Canadian dollars (the January exchange rate was 1.1914) to U.S. dollars and the gallon amount is derived from the metric liter measure now commonly used in Canada (1 gal. = 3.78 liters).

The Canadian price was computed on a "major center" weighted average of regular leaded and regular and premium unleaded gasolines sold at both full service and self service stations. The U.S. price shown represents city average retail prices for all types of gasoline as published by the Dept. of Energy.

The EMR report offers a vivid illustration of some of the differences that affect Canadian and U.S. marketing. The contrast between retail postings for full service and self service gasoline is particularly striking. "For example, in Canada, the average full-serve/self-serve differential is about 1.0¢ a liter (approximately 3.2¢ a U.S. gal.)," EMR says, "while in the U.S. the differential is approximately 9¢ a liter (about 28¢) a U.S. gal.). Therefore, comparing the full-serve prices of the two countries would generally yield a smaller differential than would a comparison of self-serve prices."

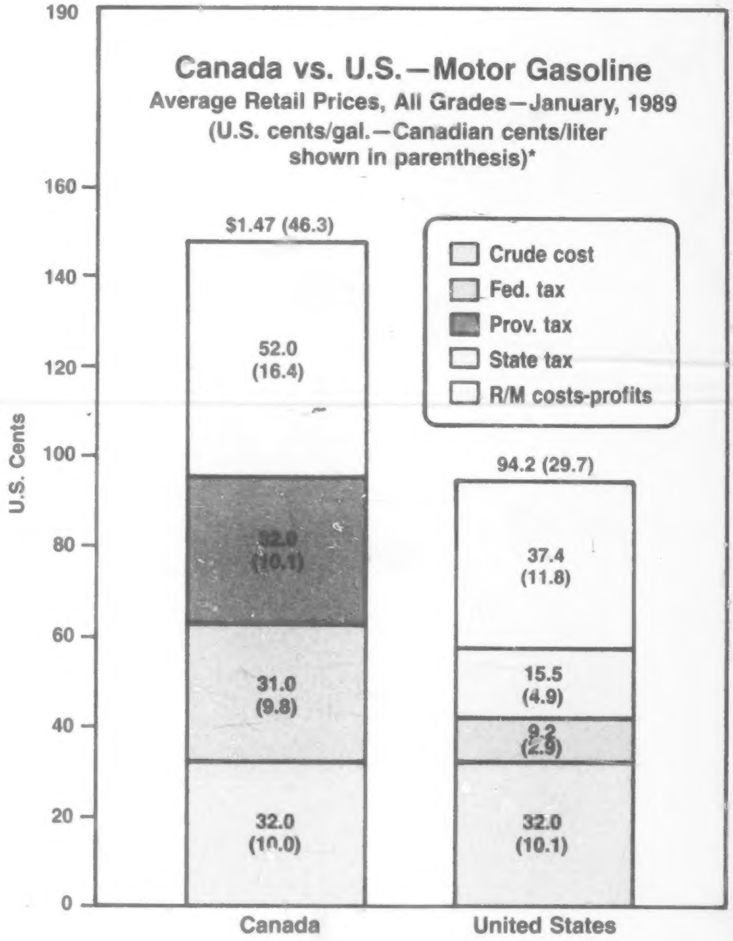
The much narrower spread between full service and self service prices in Canada undoubtedly influences the higher percentage of patronage at full service pumps in that country. Slightly more than half of Canadian gasoline is sold at full service pumps versus only 20% in the U.S.

One Canadian marketer explains that the minimal full-serve/self-serve spread has helped independent marketers "find a niche in the marketplace," allowing them to offer full-service gasoline at self-service prices [*NPN*—Feb. '88, p28].

The EMR says that the larger component in Canada for refining/marketing costs and profits results from structural differences between the two markets. "Economies of scale in refining, distribution and retailing facilities favor U.S. refiners and marketers," the report explains.

Although crude costs were virtually the same for marketers in both countries in January, historically they have been higher in Canada. The differential in crude costs is the result of longer flow-through periods and the use of higher average quality crude in Canada, EMR says. Crude costs are figured as the average refinery acquisition costs lagged by 60 days in Canada and 45 days in the U.S.

The EMR's monthly reports present a wide range of pricing and tax data.



*Exchange rate - January 1989 = 1.1914

Source: Energy Mines and Resources. Petroleum Product Market Report. Price data from Statistics Canada.

LPG Sales by States and Uses—1987

(Add 000 gal.)

	Residential and Commercial	Chemical	Industrial (1)	Engine Fuel	Utility Gas	Farm	Other (2)	Total (3, 4)
Alabama	147,622	w	11,828	12,430	w	26,415	1,320	199,719
Alaska	8,715	0	w	864	0	w	w	11,799
Arizona	57,459*	0	6,494	8,105	0	3,886	2,817	81,899
Arkansas	99,920	w	3,596	9,337	w	35,644*	2,751*	151,705
California	290,295	53,996*	241,241	112,283*	4,048	34,886	21,839*	760,059
Colorado	70,699	0	8,420*	4,302	0	5,820	1,291	93,217
Connecticut	38,309	w	14,419	2,328	w	2,348	2,497*	61,194
Delaware	23,699	w	4,374	335	0	3,010	w	36,717
Florida	264,214*	w	22,750	21,247	17,236	17,068	8,574	351,349
Georgia	178,427	w	16,627	14,197	267	45,450	2,659	259,010
Hawaii	w	0	0	w	0	w	0	7,427
Idaho	12,064	0	5,824	3,845	0	2,787	847	25,367
Illinois	228,463	254,780*	40,067	42,436	w	123,367	5,062*	724,026
Indiana	207,142	w	11,233	17,899	w	81,559	5,258*	390,877
Iowa	175,782	w	5,518	6,534	w	181,744	3,731*	375,396
Kansas	89,534	w	34,950	15,258	w	46,374	4,819*	321,476
Kentucky	164,343	w	115,516*	9,744	w	19,639	737	333,929
Louisiana	52,707	736,047	16,214*	11,278	0	9,884	4,557*	848,555
Maine	38,809	w	8,641	1,685	w	192	372	51,248
Maryland & D.C.	45,793	0	11,787	3,515	w	3,857	3,715*	69,569
Massachusetts	65,539	0	12,117	5,570	18,026	752	953*	103,691
Michigan	432,612	w	60,692	46,572	3,545	53,042	105,429*	817,843
Minnesota	188,417	0	15,284	9,852	w	99,503	1,817*	316,810
Mississippi	104,466	0	11,003*	19,582	0	16,441	851*	153,275
Missouri	285,516	w	13,111	18,149	w	42,706	1,332*	362,524
Montana	34,081	w	8,563	4,222	0	2,952	w	50,973
Nebraska	85,115	w	4,596	6,866	0	102,779	59	199,576
Nevada	28,961	0	7,016	2,367	0	404	1,107	39,855
New Hampshire	59,108	0	7,929	2,029	2,457	2,425	w	82,561
New Jersey	53,439*	83,499*	21,068	8,779	w	2,149	1,585*	252,581
New Mexico	52,970	w	2,473	8,903	0	2,012	990	67,733
New York	184,829	w	15,619	9,452	w	7,246	2,968*	221,553
North Carolina	186,925	w	37,951	13,611	w	100,851	16,777*	358,596
North Dakota	44,387	w	4,979	1,898	w	30,593	6,583	88,589
Ohio	282,756	w	49,103	48,083	3,716	66,368	5,196	534,490
Oklahoma	94,908	w	39,874	12,713	w	37,292	478	241,441
Oregon	23,207	0	11,386*	23,446	0	5,034*	775	64,205
Pennsylvania	108,235	w	47,451	16,538	w	17,748	14,482*	205,314
Rhode Island	14,644	0	5,916	906	w	103	w	26,112
South Carolina	94,911	w	21,614	7,635	2,262	16,602	1,545*	145,110
South Dakota	90,554	0	5,389	6,288	w	36,300	725	139,392
Tennessee	97,912	w	10,437	16,394	w	17,946	1,539*	146,307
Texas	366,965	4,839,339	104,932*	55,942	w	61,871*	7,678*	5,556,446
Utah	23,632*	w	7,020*	6,012*	w	2,834	2,301	51,043
Vermont	36,848	0	4,908	1,159*	0	373	w	44,281
Virginia	90,136	w	26,319	8,937	w	26,554	13,535*	165,871
Washington	36,862	0	13,483*	32,958	0	5,468	479	106,532
West Virginia	13,018	w	986	1,564	w	2,461	w	38,622
Wisconsin	236,341	0	13,952	17,186	w	46,633	7,073*	321,334
Wyoming	57,659	w	12,415*	5,178	w	6,406	682	99,922
U.S. Total	**5,671,384**	**6,307,491**	**1,293,176**	**718,013**	**188,358**	**1,458,802**	**498,641**	**16,571,120**

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* Propane only; butane withheld

w—Data withheld to avoid disclosing reports for individual companies. These reports included in totals.

(1) Includes refinery fuel.

(2) Includes secondary recovery of petroleum and synthetic natural gas feedstock.

(3) API LP-gas sales survey does not include LP-gas export sales. Also, API data on LP-gas refinery inputs is used in determining LP-gas production/sales in preference to the volume reported by EIA, see page 3.

(4) Significant changes in some states from 1985 and earlier LP-gas sales are based on additional information furnished to API by natural gas liquids pipeline companies.

LPG Sales Trends in Recent Years (a)

Major Domestic Markets (Add 000,000 gal.)

	Total U.S. Sales		Residential-Commercial		Chemical		Internal Combustion		Industrial		Farm	
Year	Vol.	% Change	Vol.	% Change	Vol.	% Change	Vol.	% Change	Vol.	% Change	Vol.	% Change
1987	16,157	12.8%	5,693	0.2%	6,307	47.8%	718	(13.5%)	1,293	(3.6%)	1,459	(10.7%)
1986	14,325	(5.0)	5,607	(3.2)	4,267	(0.9)	821	(12.8)	1,341	3.2	1,634	(4.2)
1985	15,080	(0.3)	5,794	11.4	4,307	4.8	942	1.0	1,299	(31.2)	1,706	2.6
1984	15,129	10.5	5,203	(14.6)	4,109	26.7	951	(30.2)	1,888	54.7	1,663	40.7
1983	13,688	(1.6)	6,090	(1.5)	3,244	(3.5)	1,362	9.8	1,220	(6.9)	1,183	(8.0)
1982	13,915	(3.3)	6,180	(2.1)	3,362	(3.2)	1,240	9.7	1,310	(5.0)	1,285	(12.1)
1981	14,395	(3.8)	6,310	(3.4)	3,474	(3.1)	1,130	3.6	1,380	(10.9)	1,463	(4.4)
1980	14,969	(8.9)	6,531	(4.9)	3,584	(11.3)	1,090	4.3	1,548	(20.2)	1,529	(15.4)
1979	16,432	9.4	6,871	1.2	4,043	12.7	1,045	5.5	1,940	44.8	1,764	—

This is as far back as the restated API/LPGA data go on sales trends. The figures below are Energy Information Administration data and are not essentially comparable to the restated data above. In the data below, the last column was for "all other uses" instead of farm consumption.

	Total U.S. Sales		Residential-Commercial		Chemical		Internal Combustion		Industrial		Farm	
Year	Vol.	% Change	Vol.	% Change	Vol.	% Change	Vol.	% Change	Vol.	% Change	Vol.	% Change
1977	15,508	-3.2	7,169	-2.0	3,578	-12.4	1,145	-2.1	1,044	—	2,573	7.5
1975	15,200	-6.8	7,020	-2.9	4,172	-23.0	1,162	-11.3	1,082	1.2	1,763	38.3
1970	15,271	26.6	7,569	41.6	5,003	24.8	1,336	11.9	897	32.1	467	125.6
1965	11,434	33.7	5,346	26.5	4,008	54.6	1,194	33.0	679	13.9	207	-23.0
1960	8,579	40.1	4,225	50.8	2,593	36.5	898	37.7	596	13.7	269	9.3

(a) In 1984, Energy Information Administration suddenly terminated collection of LPG sales data for budgetary reasons. American Petroleum Institute, Liquefied Petroleum Gas Assn. and others began a cooperative effort to provide the missing data annually. The 1983 and 1984 data were published in March, 1986. The new information is based on EIA data, plus API and LPGA, and are restated for the years 1979 through 1984. Utility gas, refinery fuel and miscellaneous uses are included in U.S. totals but are not stated separately.
Source: National LP-Gas Assn. and API.

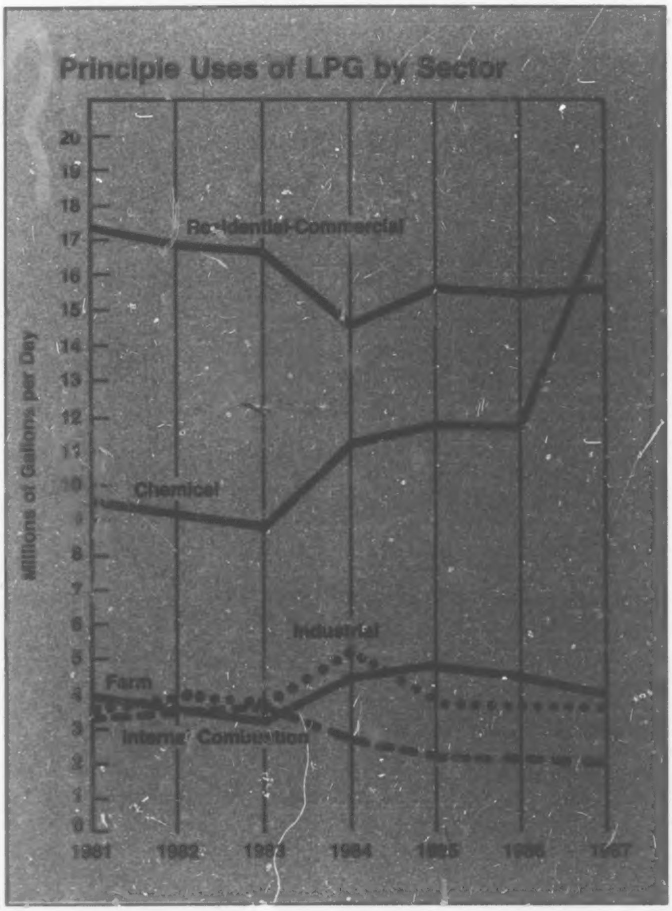
LPG Sales Soar In 1987 - - Chemical Consumption Leads The Way

Following the downward sales trends of recent years, consumption of liquefied petroleum gas had a big spurt in 1987, picking up almost an additional 2-billion gal. for an overall increase of 12.8%.

This is the biggest increase in LPG sales attained since the early 1970's, and it also topped the 1984 upswing of 10.5%. That was the only other year in this decade showing an increase in volume.

However, this overall sales picture may be distorted somewhat by the exceptional showing in chemical consumption, which was up a phenomenal 47.8%. Other segments showed only modest sales increases or net declines for the year.

In the table above, LPG used in refineries is included in industrial consumption. Other secondary uses are lumped together in the U.S. total.



LPG Sales by States, 1981-'87

(thousands by gal.)

	1987(2,3,4)	1986(2,3,4)	1985(2,3)	1984(2,3)	1983(1)	1982(1)	1981(1)
Alabama	199,719	175,072	174,219	178,075	206,881	213,548	236,176
Alaska	11,799	13,300	14,889	w	24,783	36,139	21,925
Arizona	81,899	82,649	76,034	66,727	73,890	73,127	72,553
Arkansas	151,705	167,503	176,381	168,904	190,425	193,913	182,832
California	760,059	226,324	776,882	739,859	638,197	625,100	621,623
Colorado	93,217	89,478	105,256	103,705	167,763	225,710	194,561
Connecticut	61,194	46,383	51,680	51,282	54,967	59,244	61,695
Delaware	36,717	33,084	41,825	49,652	43,007	39,365	42,563
Florida	351,349	431,608	399,436	347,271	396,833	378,633	434,344
Georgia	259,010	274,184	291,335	263,364	288,293	283,259	324,803
Hawaii	7,427	6,712	6,296	w	23,140	37,757	27,108
Idaho	25,367	30,718	36,230	31,815	39,089	44,525	34,717
Illinois	724,026	764,188	788,693	794,966	624,976	613,051	655,106
Indiana	390,877	329,913	328,805	357,416	321,871	282,080	301,838
Iowa	375,396	588,186	591,080	528,416	441,185	408,322	357,245
Kansas	321,476	212,224	611,981	756,234	345,937	273,425	236,421
Kentucky	333,929	270,554	284,430	260,962	214,026	218,674	235,841
Louisiana	848,555	896,539	952,434	982,522	236,384	202,029	248,899
Maine	51,248	42,465	26,533	22,935	33,096	38,113	34,072
Maryland & D.C.	69,569	59,584	75,501	96,840	89,809	77,805	93,723
Massachusetts	103,691	94,715	71,752	65,990	88,042	105,076	121,024
Michigan	817,843	801,192	720,361	484,763	431,990	327,955	278,640
Minnesota	316,810	397,852	356,330	333,725	313,466	297,694	264,838
Mississippi	153,275	147,132	208,514	218,242	225,201	233,627	225,792
Missouri	362,524	384,048	372,837	340,805	411,025	455,980	407,099
Montana	50,973	63,384	61,597	49,258	62,941	77,359	54,940
Nebraska	199,576	163,284	176,763	149,236	156,875	180,572	166,829
Nevada	39,855	45,898	47,390	36,366	40,072	38,652	33,836
New Hampshire	82,561	71,272	64,713	50,017	59,096	64,583	56,732
New Jersey	252,581	207,911	232,104	264,907	111,901	124,038	141,364
New Mexico	67,733	71,050	140,102	153,130	158,873	154,427	108,945
New York	221,553	208,275	207,808	208,193	262,584	245,749	264,125
North Carolina	358,596	314,373	323,396	299,367	282,743	275,717	303,417
North Dakota	88,589	89,402	26,811	31,464	47,613	66,273	73,781
Ohio	534,490	520,397	603,114	504,464	662,365	867,725	955,760
Oklahoma	241,441	280,609	400,132	272,150	249,347	260,694	284,961
Oregon	64,205	71,896	67,666	60,694	68,683	64,582	70,612
Pennsylvania	205,314	186,764	228,144	239,876	225,533	222,533	248,850
Rhode Island	26,112	24,500	20,888	12,962	15,338	15,699	13,537
South Carolina	145,110	122,967	134,045	108,489	125,485	127,860	143,156
South Dakota	139,392	104,189	86,254	69,586	88,814	101,433	89,727
Tennessee	146,307	166,793	149,979	137,847	138,024	116,009	79,904
Texas	5,556,446	3,730,949	3,749,674	4,066,334	1,000,960	1,048,020	1,419,233
Utah	51,043	48,993	60,931	62,630	66,121	71,663	48,817
Vermont	44,281	37,026	33,848	28,321	38,814	41,955	33,823
Virginia	165,871	141,903	162,529	157,263	113,591	132,161	140,183
Washington	106,532	94,972	88,627	92,533	96,114	83,408	83,450
West Virginia	38,622	38,200	35,663	15,031	22,178	26,978	36,676
Wisconsin	321,334	346,983	361,689	364,777	337,044	280,861	259,668
Wyoming	99,922	67,828	76,241	75,340	88,071	120,004	93,247
Totals	16,157,120	14,325,445	15,079,822	14,789,925	10,443,456	10,553,086	10,921,011

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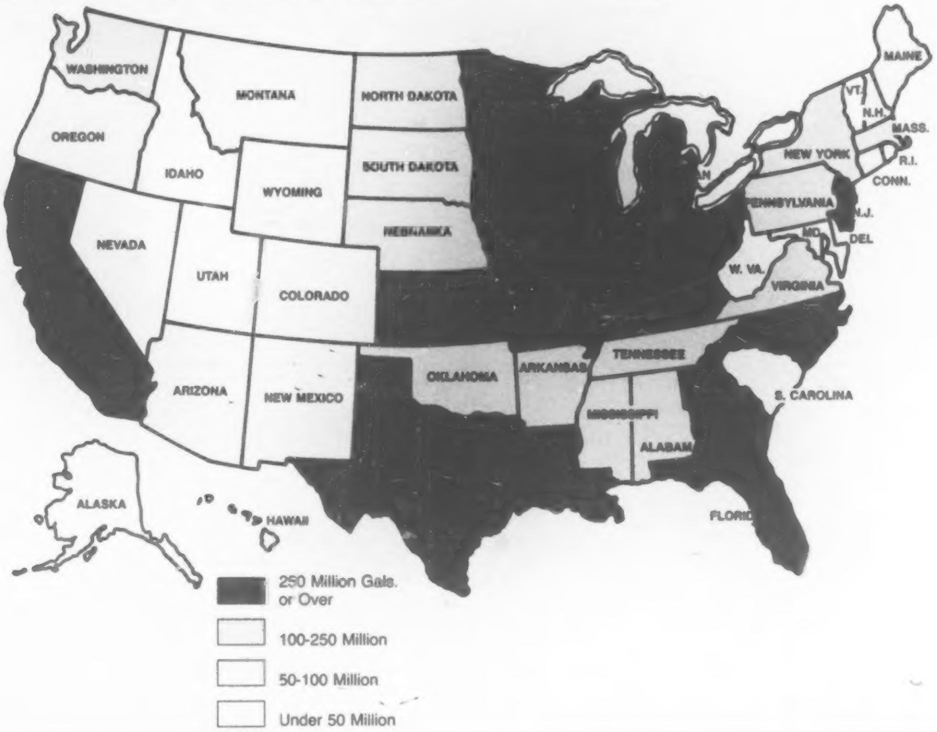
w-Data withheld to avoid disclosing reports for individual companies. These reports included in totals. (1)Does not include chemical feedstock use: (2) Does include chemical feedstock use: (3) APILP-sales survey does not include LP-gas export sales. Also, API data on LP-gas refinery inputs is used in determining LP-gas production/sales in preference to the volume reported by EIA, see page 3: (4)Significant changes in some states from 1985 and earlier LP-gas sales are based on additional information furnished to API by natural gas liquids pipeline companies.
Source: NLPGA and API.

Where LPG Was Used in 1987



NO. 1 RATED IN 1989 EPA EDISON RESULTS

VPLT COMPUTERIZED PRECISION TANK TEST SYSTEM ™ (Patented)

UNMATCHED SPECIFICATIONS - TOP EPA EDISON RESULTS

The patented **VPLT Computerized Precision Tank Test System** provides unmatched performance specifications and the most accurate precision leak test system available for all underground storage tanks. The VPLT System exceeds all 1989 EPA, NFPA 329, Federal, State and Local regulatory standards for precision tank testing. Using temperature measurement precision of .0002 degree C, 5 to 10 temperature sensors, liquid level precision of .000022 inch, and a totally computerized system, the VPLT System detects a .048 gph leak with a .95 Pd/.05 Pfa. The VPLT System even meets the more stringent requirement of .99 Pd/.01 Pfa at .1 gph that exists in certain areas of the United States.

TESTS TANKS IN EITHER OVERFILL OR UNDERFILL CONDITION

Only the VPLT System performs an underfill precision tank test at 95% of tank capacity per EPA guidelines, thus eliminating filling of dry-line piping and providing the following advantages:

- Quicker, more accurate test
- Vapor pocket errors eliminated
- Tank overfilling problems eliminated
- Minimizes pollution potential
- Topping errors eliminated
- No unnecessary excavations

TESTS SPECIAL TANKS

- Large tanks from 20,000 to 1,000,000 gallons
- Chemical
- Manifolded
- Open
- Siphoned
- Sumps
- Heated
- Waste Oil
- Manway
- Rectangular
- Vertical

UNMATCHED COST SAVINGS

Top Pd/Pfa means fewest: miscalls, unnecessary excavations, pollution problems, and unneeded retests. Other customer benefits:

- Minimal downtime
- Leak pinpointing without excavation
- No inconclusive tests
- Tests up to 4 tanks at once

NATIONWIDE TESTING BY NDE ENVIRONMENTAL AND LICENSEES

The VPLT System is field proven with nationwide testing for the past five years by NDE Environmental Corporation and authorized licensees. Testing is performed by personnel fully trained at NDE Headquarters.

Comparison of Volumetric Leak Detection Methods, Underfilled and Overfilled Tanks *
Results of November 7, 1988, December 18, 1988 and January 27, 1989 at EPA Edison Facilities

METHOD	EPA Leak Detection (0.1 GPH Leak) .95Pd/.05Pfa	Confidence Detecting Leak of 0.1 GPH	Probability of Wrongly Predicting 0.1 GPH Leak	Meets EPA Regulations	
				Over-fill	Under-fill
1. VPLT-A NDE Environmental	.048	99.3%	0.3%	YES	YES
2. AES SYSTEM II **	.07	99 %	2 %	YES	NO
3. Leak Comp (Acurex)	.08	97 %	4 %	YES	NO
4. MCG-110	.10	97 %	9 %	YES	NO
5. EZY-CHECK (Horner)	.16	86 %	15 %	NO	NO
6. Liquid Manager (Caft)	.20	80 %	14 %	NO	NO
7. Petro-Tite	.21	79 %	71 %	NO	NO
8. S.M.A.R.T. Test	.59	58 %	32 %	NO	NO
9. Ainlay Tank Integrity Test	.78	50 %	31 %	NO	NO
10. Portable Small Leak Detection (Tank Test)	.81	63 %	32 %	NO	NO
11. Mooney Leak	.83	47 %	30 %	NO	NO
12. Detection Tank Auditor	1.66	57 %	43 %	NO	NO
13. AES/BROCKMAN LDS	1.79	45 %	34 %	NO	NO

* Comparison of all methods based on: (1) Identical test protocol at EPA Edison, N.J. and (2) a single tank test for each of your tanks

** Newly developed system may not be available at all AES locations. See AES/Brockman (Method 13) for other AES system in use

NDE ENVIRONMENTAL CORP., 2909 OREGON CT., B1, TORRANCE, CA 90503 FAX 213-212-7230
FOR A COPY OF NDE'S RESULTS IN THE EPA EDISON TESTS OR TANK TESTING SERVICE - 213-212-5244 • 800-622-6044 (IN CALIF.)

Slight Increase for Lube Sales in '88

After a healthy 3.5% increase on the 1987 index, lubricant sales continued to move upward in 1988, although at a reduced pace, according to National Petroleum Refiners Assn. Sales were particularly strong in the industrial and grease areas, but off in automotive lubricants.

The NPRA report does not give volumes, only indexes and percentages which are based on the reports of participating companies. To preserve the confidentiality aspects of company sales, the reports are given to an independent auditor who converts them into indexes on an industry-wide basis.

The product categories, as defined by NPRA, are these: automotive oil—engine oils, automatic transmission fluids, gear oils and aviation oils; industrial oil—industrial engine oils, metalworking fluids, process oils and general industrial oils; grease—both automotive and industrial greases.

All finished lubricants are included in the NPRA totals. Not included, however, are exports and lube base stocks sold for further blending into finished lubricants.

NPRA stated that the data reflect the sales of the participating companies only. Sales of finished lubricants by other companies (commonly known as independent compound blenders) are not covered.

For its categories, NPRA used 55.5% of the sales for automotive oils, 42.3% for industrial oils, and 2.2% for greases.

Quarterly Indexes on Lubricant Sales

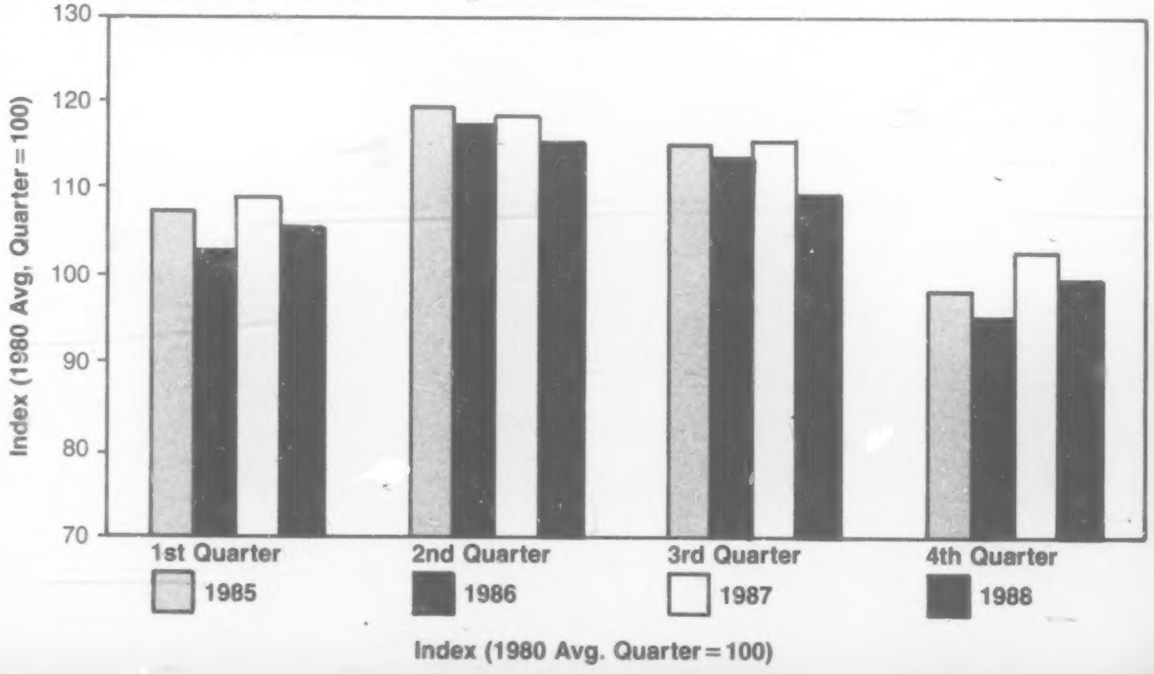
	Quarters				
	1	2	3	4	Full Year
1988	103.8	112.4	109.5	100.2	106.5
1987	101.2	108.5	108.6	101.3	104.9
1986	100.4	107.2	104.4	93.7	101.4
1985	99.5	107.7	103.5	95.4	101.5
1984	103.1	108.5	106.2	97.5	103.8
1983	89.3	99.1	98.0	92.5	94.7

Percentage Changes by Products and Quarters

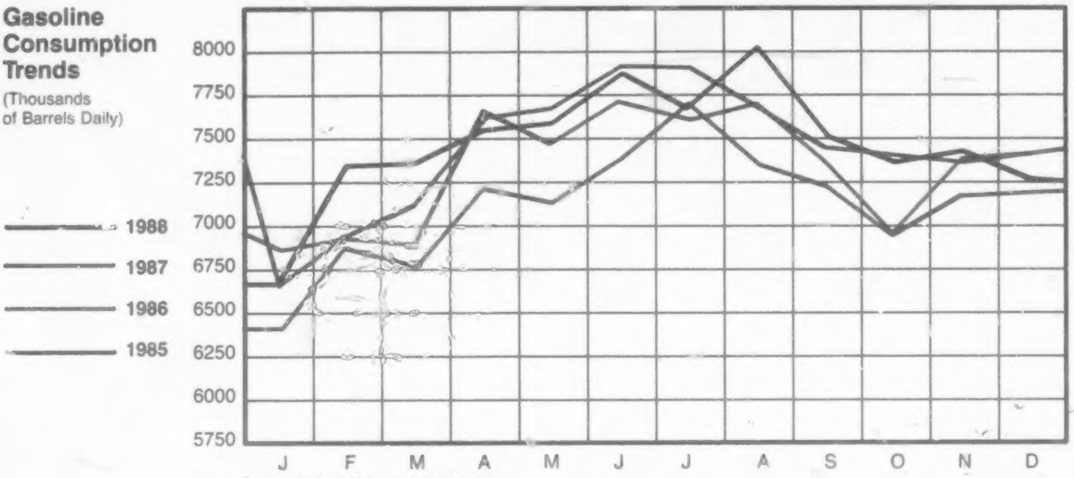
	Quarters				
1988 vs. 1987	1	2	3	4	Full Year
Automotive	−3.7%	−2.0%	−5.4%	−3.3%	−3.6%
Industrial	11.9	12.1	9.6	2.2	8.9
Grease	7.3	7.7	9.4	−6.5	4.2
Total	**2.6**	**3.6**	**0.8**	**−1.1**	**1.5**
1987 vs. 1986					
Automotive	6.1%	0.5%	1.8%	6.2%	3.4%
Industrial	−6.0	2.9	8.7	11.4	4.0
Grease	−9.6	−8.0	−13.5	−0.5	−8.0
Total	**0.7**	**1.2**	**4.0**	**8.1**	**3.6**
1986 vs. 1985					
Automotive	−4.1%	−3.1%	−1.3%	−1.9%	−2.6%
Industrial	8.8	4.4	4.0	−2.0	3.8
Grease	−1.6	−8.3	4.1	3.8	−0.6
Total	**0.9**	**−0.5**	**0.8**	**−1.8**	**−0.1**
1985 vs. 1984					
Automotive	−3.6%	3.5%	1.0%	−4.1%	−0.7%
Industrial	−3.1	−7.2	−7.4	1.3	−4.3
Grease	−4.5	−3.9	−6.7	−11.1	−6.6
Total	**−3.5**	**−0.8**	**−2.5**	**−2.2**	**−2.2**

N.B. For the index, the average quarter in 1980 = 100%; the base for quarterly indexes is 1980 full year sales for the reporting companies divided by four.
Source: National Petroleum Refiners Assn.

Automotive Lubricant Sales



Gasoline Consumption Trends
(Thousands of Barrels Daily)



Source: Federal Highway Administration

Gasoline Consumption by States—1988

(Includes highway and off-highway consumption)

	Rank		(Add 000 gal.) Gallonage (a)		% Chng.	(Add 000 gal.) Gasohol included (b)	
	1988	1987	1988	1987		1988	1987
Alabama	21	18	2,071,947	2,084,218	(0.6)	416,308	466,255
Alaska	50	50	246,038	242,578	1.4	215	381
Arizona	24	25	1,708,609	1,683,355	1.5	—	—
Arkansas	32	33	1,272,178	1,241,796	2.4	—	—
California	1	1	12,900,366	12,543,126	2.8	489,235	252,792
Colorado	27	27	1,584,881	1,565,700	1.2	50,707	21,400
Connecticut	28	28	1,499,633	1,484,832	1.0	—	—
Delaware	47	47	347,242	338,285	2.6	—	—
Dist. of Col.	—	—	185,712	181,371	2.4	402	328
Florida	3	4	6,202,351	5,914,706	4.9	73,985	139,616
Georgia	9	10	3,539,768	3,421,117	3.5	6,291	—
Hawaii	45	45	376,090	384,958	(2.3)	—	—
Idaho	41	41	478,952	462,202	3.6	45,012	24,207
Illinois	6	6	4,970,825	4,772,357	4.1	1,395,518	1,341,009
Indiana	14	13	2,681,251	2,745,535	(2.3)	603,867	685,814
Iowa	29	29	1,392,723	1,369,663	1.7	402,844	397,029
Kansas	31	32	1,326,645	1,265,811	4.8	120,763	139,831
Kentucky	23	23	1,907,775	1,855,460	2.8	798,731	757,390
Louisiana	22	20	2,064,779	2,062,830	0.1	79,635	252,975
Maine	38	38	658,179	606,596	8.5	—	—
Maryland	19	19	2,099,811	2,068,369	1.5	—	—
Massachusetts	16	16	2,542,571	2,491,662	2.0	—	—
Michigan	8	8	4,389,647	4,287,736	2.4	499,565	482,896
Minnesota	20	22	2,091,791	2,033,108	0.3	173,319	214,005
Mississippi	33	31	1,264,910	1,270,055	(0.4)	—	—
Missouri	13	14	2,780,023	2,754,512	0.9	—	21,912
Montana	42	42	453,073	440,858	2.8	310	2,451
Nebraska	37	36	801,447	776,125	3.3	258,073	241,984
Nevada	39	39	605,424	567,686	6.6	56,716	58,877
New Hampshire	40	40	527,610	514,167	2.6	—	—
New Jersey	11	9	3,491,849	3,586,002	(2.4)	—	—
New Mexico	36	35	828,818	821,713	0.9	147,656	99,310
New York	4	3	5,470,492	5,168,884	5.8	—	—
North Carolina	10	11	3,493,483	3,318,096	5.3	—	—
North Dakota	46	46	365,846	381,284	(4.0)	44,317	62,726
Ohio	5	5	5,013,798	5,012,222	—	985,586	891,110
Oklahoma	25	24	1,685,946	1,772,817	(4.9)	—	—
Oregon	30	30	1,362,482	1,312,919	3.8	—	—
Pennsylvania	7	7	4,696,540	4,590,386	2.3	—	—
Rhode Island	43	43	401,344	396,573	1.2	—	—
South Carolina	26	26	1,596,460	1,680,761	(5.3)	98,641	37,647
South Dakota	44	44	396,289	392,527	1.0	58,150	59,157
Tennessee	15	15	2,567,204	2,754,514	(6.8)	580,227	524,300
Texas	2	2	9,046,463	8,865,928	2.0	260,366	454,502
Utah	35	37	835,378	764,441	9.3	358	226
Vermont	49	49	291,291	282,232	3.2	—	—
Virginia	12	12	3,022,281	2,993,746	1.0	282,181	310,274
Washington	17	17	2,241,154	2,215,350	1.2	54,519	53,840
West Virginia	34	34	840,609	829,349	1.4	—	—
Wisconsin	18	21	2,117,182	2,046,604	3.4	20,175	10,238
Wyoming	48	48	318,867	313,409	1.7	62	50
Total U.S.	—	—	**114,870,672**	**113,930,531**	**0.8**	**7,988,111**	**8,004,442**

(a) These totals reflect the gross gal. of gasoline reported for tax purposes by wholesale distributors in each state. The data are taken from state taxation reports. The data include highway and non-highway use and losses.

(b) These totals show gross gal. of gasohol (ethanol blends) reported by the states. The data are obtained from state taxation reports. In states where gasohol is taxed at the same rate as gasoline, some gasohol gallonage may be commingled with gasoline data. All totals—gasoline and gasohol—are preliminary.

Source: Federal Highway Administration, Monthly Gasoline Reports, 1988.

Gasoline Consumption by Months—1987

This table, prepared by Federal Highway Administration, shows gross gallons of gasoline reported by wholesale distributors in each state. The data are taken from state taxation reports and may reflect time lags up to six weeks between the wholesale level and retail sales. The data include highway use, nonhighway use, and losses.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	159,663	150,881	171,345	177,497	177,125	185,757	189,551	174,105	172,130	177,631	164,809	183,724	2,084,218
Alaska	15,889	15,257	18,256	18,869	20,598	24,564	25,991	24,416	23,204	20,386	17,301	17,847	242,578
Arizona	143,555	140,091	147,090	141,430	143,836	136,498	136,102	139,772	140,636	138,708	134,637	141,000	1,683,355
Arkansas	56,537	124,315	98,447	100,027	110,772	116,466	112,336	104,432	109,326	36,984	161,710	110,444	1,241,796
California	993,650	915,495	1,057,104	1,070,821	1,051,673	1,067,111	1,085,727	1,065,650	1,037,168	1,072,756	1,031,067	1,094,373	12,543,135
Colorado	121,352	103,509	129,228	124,996	133,212	140,617	148,210	147,900	132,184	130,330	117,594	136,568	1,565,700
Connecticut	117,651	106,992	122,771	119,431	126,593	128,722	132,520	127,234	119,982	130,905	121,328	130,703	1,484,832
Delaware	19,982	27,579	27,202	26,310	46,918	14,536	32,319	32,146	27,392	28,889	26,610	28,402	338,285
Dist. of Col.	12,758	12,160	14,191	14,153	14,984	17,151	16,990	15,929	14,655	15,100	17,800	15,500	181,371
Florida	521,227	490,822	469,434	538,746	505,214	492,494	485,506	494,816	486,319	461,163	503,381	465,584	5,914,706
Georgia	253,617	262,663	279,248	274,993	314,095	293,931	305,693	286,498	284,938	295,840	274,610	294,991	3,421,117
Hawaii	30,484	27,605	32,846	31,789	47,254	31,149	30,858	31,508	33,440	31,267	26,163	30,595	384,958
Idaho	33,100	36,011	34,776	29,569	32,304	34,802	39,783	40,847	52,653	43,013	46,000	39,344	462,202
Illinois	396,287	334,139	393,060	417,114	389,997	414,180	432,654	395,711	407,887	448,197	351,815	391,316	4,772,357
Indiana	196,648	181,124	215,046	319,349	228,768	230,201	232,220	242,695	219,475	239,326	209,859	230,824	2,745,535
Iowa	103,557	88,608	111,781	115,629	115,619	124,832	126,294	112,828	126,497	122,732	104,342	116,944	1,369,663
Kansas	97,401	86,045	98,459	107,216	109,076	115,609	116,396	107,328	106,280	112,301	99,800	109,900	1,265,811
Kentucky	122,176	151,711	144,174	165,514	158,227	169,343	165,568	163,014	152,679	101,591	207,045	154,418	1,855,460
Louisiana	187,911	150,512	171,947	180,778	177,465	176,145	178,687	172,497	165,381	172,394	157,928	171,185	2,062,830
Maine	45,660	45,581	43,580	47,981	48,380	53,705	61,138	59,414	53,684	51,152	49,041	47,280	606,596
Maryland	155,174	152,322	175,267	170,134	186,225	173,850	184,752	174,910	170,706	175,441	170,003	179,585	2,068,369
Massachusetts	196,283	176,137	201,370	201,621	214,150	216,378	224,071	221,253	203,977	220,689	199,799	215,934	2,491,662
Michigan	332,759	306,228	340,025	345,155	367,880	381,222	370,467	415,590	338,080	386,301	353,091	350,938	4,287,736
Minnesota	151,843	137,921	157,904	159,778	162,103	203,297	193,977	188,117	159,806	170,547	178,775	169,040	2,033,108
Mississippi	94,524	85,717	101,271	81,172	119,067	122,633	122,071	118,478	107,536	100,253	99,036	118,297	1,270,055
Missouri	209,396	195,007	221,122	243,878	248,051	213,966	271,702	236,495	229,083	238,984	211,333	235,495	2,754,512
Montana	31,000	26,270	31,213	35,423	37,801	49,547	41,887	44,064	38,776	37,909	32,834	34,134	440,858
Nebraska	53,498	51,179	62,130	63,543	67,461	69,409	76,735	67,129	67,399	72,536	58,005	67,101	776,125
Nevada	45,609	43,725	40,032	46,271	45,604	48,928	51,457	51,529	52,050	40,935	56,335	45,211	567,686
New Hampshire	41,652	39,012	38,798	38,412	41,545	47,098	48,588	47,297	42,537	45,282	41,035	42,911	514,167
New Jersey	274,287	239,800	284,757	292,407	309,901	292,335	350,446	328,901	298,363	315,215	285,161	314,429	3,586,002
New Mexico	54,768	66,489	63,570	71,504	67,826	83,975	71,848	72,279	66,048	66,613	67,010	69,783	821,713
New York	595,125	353,008	514,684	448,336	735,181	552,642	532,054	521,535	420,352	481,504	500,021	514,442	6,168,884
North Carolina	241,822	222,684	275,367	276,589	285,693	285,365	302,236	279,244	301,112	290,607	264,440	292,937	3,318,096
North Dakota	19,183	31,131	16,030	37,337	44,061	39,687	34,457	37,244	32,573	31,732	28,657	29,192	381,284
Ohio	376,351	362,496	404,341	397,102	425,276	465,672	455,991	442,282	402,701	411,515	440,919	427,576	5,012,222
Oklahoma	139,703	135,493	159,310	156,761	198,407	140,201	149,549	143,264	138,616	142,915	130,626	137,972	1,772,817
Oregon	38,005	148,830	98,922	109,606	114,984	117,825	79,944	169,600	110,518	88,364	126,946	109,375	1,312,919
Pennsylvania	346,727	325,880	370,858	378,846	399,714	397,594	415,077	394,443	378,196	409,761	373,683	399,607	4,590,386
Rhode Island	31,477	31,477	31,477	33,258	33,258	33,258	34,011	34,011	34,011	33,445	33,445	33,445	396,573
South Carolina	139,116	125,250	120,711	203,660	148,934	165,760	131,979	128,924	125,554	134,679	123,967	132,227	1,680,761
South Dakota	26,011	22,974	28,111	32,961	33,829	39,779	40,145	37,971	34,406	35,943	27,546	32,851	392,527
Tennessee	228,527	189,592	230,285	231,555	248,893	225,369	253,743	232,315	231,245	236,651	233,346	214,993	2,754,514
Texas	696,949	659,229	742,058	771,614	681,821	760,168	810,933	769,426	740,526	745,083	716,026	772,095	8,865,928
Utah	61,228	50,570	61,848	62,667	64,740	69,079	73,075	70,258	65,256	70,931	48,380	66,409	764,441
Vermont	22,046	20,684	21,469	20,738	22,582	23,735	26,806	26,144	23,893	24,843	21,487	27,805	282,232
Virginia	250,566	202,851	221,990	252,693	243,379	259,492	321,059	250,876	242,398	255,880	227,495	265,067	2,993,746
Washington	53,606	214,194	190,072	118,960	315,045	177,204	217,519	203,545	183,278	183,385	176,567	181,975	2,215,350
West Virginia	53,635	58,597	70,234	65,746	68,825	76,825	75,825	70,687	76,804	64,638	67,005	81,528	829,349
Wisconsin	149,863	118,866	181,852	165,188	175,351	188,933	195,334	182,885	172,471	185,109	163,665	167,087	2,046,604
Wyoming	20,434	17,906	20,108	23,835	26,178	31,522	36,726	33,987	29,641	27,444	21,831	23,797	313,409
U.S. Total	**8,760,272**	**8,262,619**	**9,257,171**	**9,558,962**	**10,083,875**	**9,919,561**	**10,249,007**	**9,933,423**	**9,383,822**	**9,555,799**	**9,301,849**	**9,664,171**	**113,930,531**

Source: Federal Highway Administration, Monthly Gasoline Reports 1987

Gasoline Consumption by Months—1988

This table, based on Federal Highway Administration data, shows gross gallons of gasoline reported by wholesale distributors in each state. The data are taken from state taxation reports and may reflect time lags up to six weeks between the wholesale level and retail sales. The data include highway use, nonhighway use and losses.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	155,061	154,506	173,622	169,798	178,199	181,499	173,666	175,002	179,095	155,015	189,912	186,652	2,071,947
Alaska	15,987	16,683	17,863	17,975	19,322	27,594	27,259	24,963	19,371	23,892	17,555	17,664	246,038
Arizona	144,653	130,427	145,387	146,097	151,821	139,110	153,533	143,922	134,954	142,936	142,255	133,514	1,708,609
Arkansas	39,644	155,178	101,043	88,775	127,498	114,605	108,023	116,263	103,980	97,324	89,729	130,096	1,272,176
California	1,023,143	976,079	1,098,173	1,035,712	1,072,991	1,084,624	1,110,027	1,143,575	1,064,845	1,095,858	1,063,687	1,131,652	12,900,366
Colorado	120,689	113,857	127,742	128,927	128,719	140,668	148,955	148,546	128,477	140,293	130,144	128,134	1,584,881
Connecticut	118,104	116,066	128,028	121,520	130,554	129,172	126,504	133,731	123,411	129,400	125,788	117,175	1,499,633
Delaware	24,623	25,608	28,456	28,415	48,146	12,996	31,382	32,847	29,118	28,784	27,199	29,668	347,242
Dist. of Col.	14,600	14,068	16,565	15,258	16,028	15,994	15,686	16,081	15,044	15,712	15,377	16,377	186,686
Florida	581,498	427,284	531,819	555,610	522,258	503,008	480,035	497,821	501,142	518,292	518,292	518,292	6,202,351
Georgia	263,026	273,927	293,279	308,284	302,418	296,352	305,997	313,196	289,235	298,395	287,174	308,145	3,539,768
Hawaii	32,175	29,375	31,104	31,189	31,612	30,650	35,347	32,135	30,695	31,153	31,103	29,552	376,090
Idaho	34,140	34,363	35,800	34,111	41,698	36,682	37,780	47,497	47,287	45,721	43,735	40,138	478,952
Illinois	399,646	377,467	405,463	425,387	397,653	427,720	434,891	415,220	417,571	441,223	394,610	434,983	4,971,834
Indiana	206,177	195,302	223,871	216,495	232,568	232,585	278,830	243,651	219,006	230,436	221,213	231,117	2,681,251
Iowa	106,707	103,401	116,862	115,679	113,793	116,042	90,748	169,031	118,651	116,251	116,251	109,307	1,392,723
Kansas	100,259	113,150	111,395	107,658	111,398	121,145	111,887	114,247	107,564	109,066	108,884	109,992	1,326,645
Kentucky	152,429	138,864	154,639	169,276	170.082	162,181	173,588	165,024	146,386	155,710	152,228	167,368	1,907,775
Louisiana	155,174	158,304	177,914	171,264	179,631	163,772	177,049	197,131	169,740	163,955	168,942	181,903	2,064,779
Maine	51,163	45,840	49,340	47,068	55,044	55,184	61,247	69,070	59,881	58,340	54,247	51,755	658,179
Maryland	157,024	156,718	178,514	171,794	176,607	175,238	180,112	190,065	171,350	173,963	182,631	185,795	2,099,811
Massachusetts	202,127	190,783	210,261	204,375	216,322	220,334	217,431	229,382	208,058	212,350	206,049	225,099	2,542,571
Michigan	323,271	326,859	349,014	350,117	382,853	385,706	43,707	402,241	352,952	385,633	353,571	373,323	4,389,647
Minnesota	158,229	160,518	161,576	180,236	168,111	189,173	188,376	188,308	178,104	176,191	169,083	174,805	2,092,710
Mississippi	92,576	95,679	114,412	100,985	113,971	107,732	107,531	117,546	99,522	101,290	101,624	112,042	1,264,910
Missouri	212,354	198,142	240,380	237,141	234,477	240,693	253,933	237,942	278,815	233,678	226,370	236,098	2,780,023
Montana	29,322	29,669	34,609	34,791	37,243	43,623	47,942	46,338	38,034	36,883	36,883	34,038	453,073
Nebraska	56,918	57,063	65,267	63,569	67,851	78,920	69,606	73,060	67,810	70,782	66,509	64,092	448,745
Nevada	47,031	45,801	44,789	49,656	49,150	52,111	53,676	54,305	56,726	51,476	51,682	49,021	605,424
New Hampshire	41,400	39,969	41,517	40,369	43,392	47,098	47,877	50,911	44,289	44,608	41,245	44,935	527,610
New Jersey	250,306	312,988	251,300	312,517	287,682	353,257	276,269	318,427	323,413	271,785	239,548	294,307	3,491,849
New Mexico	61,033	66,089	69,938	65,710	71,265	69,104	73,006	77,990	67,559	68,525	66,573	72,026	828,818
New York	476,315	435,659	466,487	411,333	478,508	484,102	412,140	622,788	420,815	420,815	420,815	420,815	5,470,492
North Carolina	261,275	259,519	318,403	309,248	316,242	295,982	285,123	307,891	281,051	280,085	280,978	297,686	3,493,483
North Dakota	19,021	32,310	27,764	30,349	30,841	34,189	36,686	34,446	32,307	30,906	28,458	28,569	365,846
Ohio	396,332	358,859	414,493	411,952	443,007	439,656	432,824	455,525	414,837	412,263	413,066	414,975	5,013,789
Oklahoma	126,649	127,649	143,545	141,508	146.685	145,403	135,043	157,537	137,166	125,982	155,579	143,650	1,685,946
Oregon	24,416	171,151	95,791	75,400	127,328	125,221	161,097	130,518	115,382	114,545	108,093	113,540	1,362,482
Pennsylvania	357,052	348,604	386,144	386,680	413,211	407,874	412,856	421,556	386,165	402,472	398,458	375,467	4,696,540
Rhode Island	31,855	31,855	31,855	33,723	33,723	33,723	34,368	34,368	34,368	33,822	33,822	33,822	401,304
South Carolina	110,610	119,732	123,533	141,217	137,772	149,357	138,117	144,345	131,622	130,038	130,038	130,038	1,596,460
South Dakota	26,951	27,404	34,323	29,005	32,119	39,795	38,537	38,320	33,277	33,750	32,757	30,051	396,289
Tennessee	199,007	180,297	225,525	217,780	203,199	210,560	241,913	236,615	206,493	215,855	207,173	223,287	2,567,204
Texas	678,982	726,330	805,662	769,403	806,814	795,095	797,941	766,726	712,432	720,863	718,274	747,741	9,046,463
Utah	56,035	111,197	63,411	63,453	64,714	69,019	70,663	72,860	64,835	78,738	59,191	61,262	835,378
Vermont	23,009	22,047	22,975	21,127	23,502	25,146	26,824	28,504	25,379	25,821	22,457	22,040	291,291
Virginia	226,961	216,073	252,653	260,338	249,777	254,352	266,574	292,095	232,516	273,637	248,310	248,995	3,022,281
Washington	164,606	166,680	185,949	186,822	182,725	197,781	204,388	211,688	194,146	189,699	174,787	181,833	2,241,154
West Virginia	58,562	60,998	69,038	68,124	70,032	35,590	119,252	70,636	81,144	69,673	67,595	66,965	840,609
Wisconsin	155,916	163,349	133,160	168,376	212,230	191,101	187,429	192,499	177,969	181,457	173,203	179,693	2,117,182
Wyoming	20,696	20,792	22,667	23.272	27,409	32,898	35,553	33,660	29,197	27,490	23,243	21,990	318,867
U.S. Total	**8,785,669**	**8,907,532**	**9,553,430**	**9,493,918**	**9,880,195**	**9,922,136**	**9,989,268**	**10,438,045**	**9,453,226**	**9,592,085**	**9,343,788**	**9,517,752**	**114,874,460**

Source: Federal Highway Administration, Monthly Gasoline Reports 1988; table compiled by NPN with some estimates for late reporting states including D.C., Florida, Illinois, Minnesota, Montana, New York, Ohio, Oregon and South Carolina.

Gasoline Octanes, U.S. Service Stations

Year	Season	Leaded Regular[a] Rsh.	Leaded Regular[a] Mtr.	Leaded Regular[a] (R+M)*/2	Unleaded Regular[b] Rsh.	Unleaded Regular[b] Mtr.	Unleaded Regular[b] (R+M)*/2	Unleaded Premium[c] Rsh.	Unleaded Premium[c] Mtr.	Unleaded Premium[c] (R+M)*/2
1988	Summer	93.3	83.7	88.5	92.2	82.7	87.5	97.0	86.8	91.9
1987-88	Winter	93.1	84.2	88.7	91.9	82.9	87.4	96.7	87.0	91.9
1987	Summer	93.3	84.0	88.7	92.0	82.7	87.4	96.8	86.8	91.8
1986-87	Winter	93.1	84.2	88.7	91.7	82.7	87.2	96.7	86.9	91.8
1986	Summer	93.3	84.3	88.8	92.0	82.7	87.3	96.7	86.7	91.7
1985-86	Winter	93.0	84.5	88.8	91.8	82.8	87.3	96.8	86.9	91.8
1985	Summer	92.8	84.8	88.8	91.9	82.8	87.4	96.5	86.8	91.7
1984-85	Winter	92.8	85.2	89.1	91.8	82.9	87.4	96.4	86.8	91.6
1984	Summer	92.9	85.0	89.0	91.6	82.9	87.3	96.5	86.9	91.7
1983-84	Winter	92.7	84.9	88.8	91.7	82.9	87.3	96.1	86.6	91.3
1983	Summer	93.1	84.9	89.0	92.0	82.9	87.5	96.4	86.5	91.4
1982-83	Winter	92.9	85.2	89.1	91.7	82.9	87.3	96.3	86.7	91.5
1982	Summer	93.0	85.0	89.0	91.9	82.8	87.3	96.8	86.6	91.7
1981-82	Winter	92.7	81.1	88.9	91.8	82.9	87.4	96.6	86.8	91.7
1981	Summer	92.8	85.1	89.0	91.9	83.0	87.4	96.3	86.2	91.3
1980-81	Winter	92.8	85.4	89.1	91.9	83.3	87.6	96.1	86.5	91.4

(a) Below 93 octane; (b) Below 90 octane; (c) 90 octane and above; *Antiknock index.
Source: Motor Gasolines, Summer 1988, National Institute for Petroleum and Energy Research, Bartlesville, Okla., published March 1989.

Regional Octane Averages—Summer 1988

Regions[e]	Leaded Regular[a] Rsh.	Leaded Regular[a] Mtr.	Leaded Regular[a] R+M*/2	Unleaded Regular[b] Rsh.	Unleaded Regular[b] Mtr.	Unleaded Regular[b] R+M*/2	Unleaded Premium[c] Rsh.	Unleaded Premium[c] Mtr.	Unleaded Premium[c] R+M*/2	Alcohol-blended Premium[d] Rsh.	Alcohol-blended Premium[d] Mtr.	Alcohol-blended Premium[d] R+M*/2
Northeast	94.6	83.7	89.2	92.8	82.7	87.8	97.8	86.7	92.3	NS	NS	NS
Mid-Atlantic Coast	94.2	84.1	89.2	92.8	82.7	87.8	97.6	86.9	92.3	97.7	86.8	92.3
Southeast	94.0	84.1	89.1	92.3	82.5	87.4	97.3	86.8	92.1	98.2	86.5	92.4
Florida	93.9	84.5	89.2	92.9	82.9	87.9	98.4	87.4	92.9	NS	NS	NS
North Central	94.1	84.6	89.4	92.3	82.9	87.6	96.5	87.9	92.2	96.7	86.4	91.6
Ohio Valley	93.9	84.5	89.2	92.2	82.8	87.5	96.8	86.9	91.9	97.4	87.2	92.3
Central and Upper Plains	93.1	83.8	88.5	92.0	82.7	87.4	96.0	88.6	91.3	96.2	85.6	90.9
Oklahoma and East Texas	94.1	83.4	88.8	92.3	82.4	87.4	97.0	86.9	92.0	97.1	86.3	91.7
North Mountain States	92.0	82.6	87.3	90.7	82.3	86.5	95.4	86.3	90.9	96.8	86.9	91.9
Central Mountain States	91.2	82.3	86.8	91.3	82.1	86.7	NS	NS	NS	NS	NS	NS
New Mexico and West Texas	92.1	83.3	87.7	92.2	83.0	87.6	95.2	85.9	90.5	NS	NS	NS
West Southwest	92.7	83.6	88.2	92.2	82.9	87.5	97.4	86.6	92.1	96.2	85.6	90.9
Pacific Northwest	92.6	83.7	88.2	92.1	83.1	87.6	97.2	87.2	92.2	NS	NS	NS
North California and North Nevada	93.4	83.0	88.2	92.8	83.0	87.9	97.6	86.4	92.1	97.2	86.1	91.7
South California	93.0	83.6	88.3	92.4	83.0	87.7	97.4	86.0	91.7	96.4	84.3	90.4
Average												
Summer 1988	**93.3**	**83.7**	**88.5**	**92.2**	**82.7**	**87.5**	**97.0**	**86.8**	**91.9**	**97.0**	**86.2**	**91.6**
Summer 1987	**93.3**	**84.0**	**88.7**	**92.0**	**82.7**	**87.4**	**96.8**	**86.8**	**91.8**	**97.1**	**86.5**	**91.9**

(a) Below 93 octane; (b) Below 90 octane; (c) 90 octane and above; (d) 90 octane and above, blended; (e) Regions were redefined and reduced in number by the API Products Committee in 1988; *Antiknock index; NS – No samples.
Source: Motor Gasolines, Summer 1988, National Institute for Petroleum and Energy Research, Bartlesville, Okla., published March 1989.

Gasoline Consumption by Rank—1988

State	1988 Rank	1987 Rank	Gallonage (Add 000) 1988 (a)
California	1	1	12,900,366
Texas	2	2	9,046,463
Florida	3	4	6,202,351
New York	4	3	5,470,492
Ohio	5	5	5,013,780
Illinois	6	6	4,971,834
Pennsylvania	7	7	4,696,540
Michigan	8	8	4,389,647
Georgia	9	10	3,539,768
North Carolina	10	11	3,493,483
New Jersey	11	9	3,491,849
Virginia	12	12	3,022,281
Missouri	13	14	2,780,023
Indiana	14	13	2,681,251
Tennessee	15	15	2,567,204
Massachusetts	16	16	2,542,571
Washington	17	17	2,241,154
Wisconsin	18	21	2,117,182
Maryland	19	19	2,099,811
Minnesota	20	22	2,092,710
Alabama	21	18	2,071,947
Louisiana	22	20	2,064,779
Kentucky	23	23	1,907,775
Arizona	24	25	1,708,609
Oklahoma	25	24	1,685,946
South Carolina	26	26	1,596,460
Colorado	27	27	1,548,881
Connecticut	28	28	1,499,633
Iowa	29	29	1,392,723
Oregon	30	30	1,362,482
Kansas	31	32	1,326,645
Arkansas	32	33	1,272,176
Mississippi	33	31	1,264,910
West Virginia	34	34	840,609
Utah	35	37	835,378
New Mexico	36	35	828,818
Nebraska	37	36	801,447
Maine	38	38	658,179
Nevada	39	39	605,424
New Hampshire	40	40	527,610
Idaho	41	41	478,952
Montana	42	42	448,745
Rhode Island	43	43	401,304
South Dakota	44	44	396,289
Hawaii	45	45	376,090
North Dakota	46	46	365,846
Delaware	47	47	347,242
Wyoming	48	48	318,867
Vermont	49	49	291,291
Alaska	50	50	246,038
Dist. of Col.	51	51	186,686

(a) Preliminary with up to nine state totals estimated by NPN based on Federal Highway Administration monthly reports, 1988.

Source: Federal Highway Administration, Monthly Gasoline Reports—1988

Unleaded Gasolines Take Over

There was no letup in 1988 in the way unleaded gasoline continued to overwhelm the marketplaces.

Unleaded gasoline sales rose last year, hitting an all-time high average of 5,973,000-b/d. This was 81.7% of total gasoline sales, meaning that unleaded gasoline demand averaged four out of every five gallons sold last year.

Unleaded gasoline sales have been rising steadily through the years, exerting downward pressure on leaded grades. It is anticipated that by the early 1990s, leaded gasoline will be virtually a specialty product hard to find in most parts of the U.S.

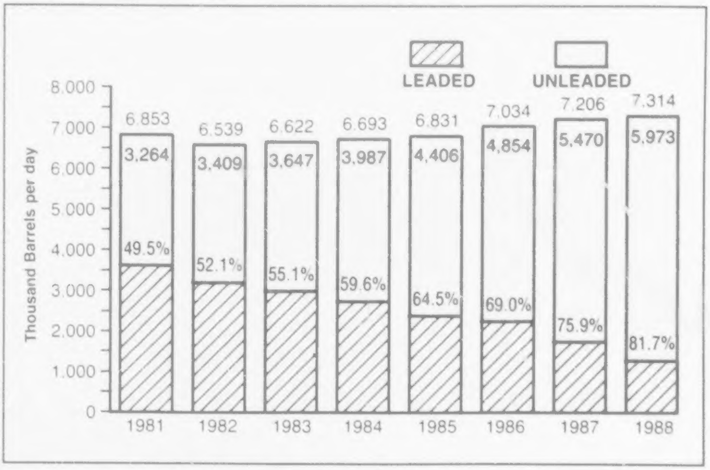
An interesting aspect of the 1988 picture was that total gasoline sales averaged 7,314,000-b/d. This is the second highest annual average in history, being exceeded only by the 1978 peak of 7,412,000-b/d. Barring any freak changes in national consumption patterns, this old 1978 record undoubtedly will be surpassed this year.

It is true, of course, that pump sales averaged more than 7,412,000-b/d in the summer driving months in 1988, but that was for only a limited period.

Unleaded gasoline was mandated by the federal government in 1978. When it first came on the market it was lucky to capture one out of every four gallons sold. By 1981, unleaded sales were about half the market, and by 1985 unleaded gasoline had a two-to-one edge over leaded gasoline. The gap grew wider in 1988, with unleaded gasoline now accounting for four out of every five gallons sold in American marketplaces.

These changes are being reflected in the retail markets. Many oil companies have already discontinued leaded sales and have added a mid-grade unleaded so that consumers will continue to have their choice of motor fuels.

Unleaded vs. Leaded Motor Gasoline, 1981-1988



Source: Energy Information Administration, Petroleum Supply Monthly, February 1989

Gasohol Consumption by States—1987

This table, prepared by Federal Highway Administration, shows gross gallons of gasohol (ethanol blends) reported by the various states. The data are obtained from the state taxation reports. In states where gasohol is taxed at the same rate as gasoline, some gasohol gallonage may be commingled with gasoline data. At any rate, this is a preliminary report and upward revisions may be expected on the basis of later data. This report indicates there was a small increase in gasohol sales in 1987.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	29,193	34,495	44,984	50,800	51,156	44,372	35,494	33,218	32,097	34,559	34,780	41,107	466,255
Alaska	27	14	22	20	20	31	23	65	46	41	48	24	381
Arizona	—	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—	—	—	—	—
California	22,786	21,934	23,176	25,296	19,949	19,276	16,536	19,333	18,421	18,253	21,619	26,123	252,702
Colorado	—	—	—	—	—	—	5,866	3,064	3,494	2,762	3,048	3,166	21,400
Connecticut	—	—	—	—	—	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	—	—	—	—	—	—	—	—	—
Dist. of Col.	9	11	10	43	27	43	38	42	45	18	25	17	328
Florida	14,514	11,859	13,025	15,353	15,426	15,323	14,192	10,018	7,941	7,205	7,668	7,092	139,616
Georgia	—	—	—	—	—	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	803	1,128	1,326	1,225	1,310	2,506	1,549	2,357	4,034	2,260	3,229	2,480	24,207
Illinois	94,699	106,704	108,614	104,815	109,171	115,857	116,685	111,363	105,081	145,160	105,375	117,485	1,341,009
Indiana	59,390	53,707	59,390	60,048	60,702	61,621	58,976	58,182	51,521	56,397	49,526	56,354	685,814
Iowa	30,902	26,891	34,508	34,076	33,696	35,826	38,105	30,051	35,153	32,185	31,638	33,998	397,029
Kansas	13,920	12,620	14,132	16,678	17,737	14,082	8,879	7,772	7,359	8,963	8,057	9,632	139,831
Kentucky	65,391	53,606	53,271	71,906	69,832	65,279	83,861	55,136	62,689	63,949	58,199	54,271	757,390
Louisiana	25,930	33,900	38,948	36,997	2,383	18,113	17,969	18,102	17,717	14,515	9,426	18,975	252,975
Maine	—	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	32,173	34,208	38,880	38,578	42,345	42,481	43,324	42,380	40,293	44,257	39,959	44,018	482,896
Minnesota	19,256	17,647	20,532	20,377	22,755	20,714	17,758	16,490	14,620	14,191	15,648	14,017	214,005
Mississippi	—	—	—	—	—	—	—	—	—	—	—	—	—
Missouri	1,826	1,826	1,826	1,826	1,826	1,826	1,826	1,826	1,826	1,826	1,826	1,826	21,912
Montana	357	74	350	101	72	167	268	277	181	153	130	321	2,451
Nebraska	16,890	17,317	20,401	19,350	21,736	21,322	21,953	20,524	20,081	21,676	18,622	22,112	241,984
Nevada	4,765	7,330	4,612	4,716	6,793	4,427	5,346	2,812	4,265	2,463	7,520	3,828	58,877
New Hampshire	—	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—	—	—	—	—
New Mexico	4,986	4,810	3,716	9,716	5,762	18,949	7,921	8,856	6,704	10,109	8,167	9,614	99,310
New York	—	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina	—	—	—	—	—	—	—	—	—	—	—	—	—
North Dakota	6,243	9,491	4,326	9,902	9,030	5,126	3,921	2,951	2,749	3,006	2,755	3,226	62,726
Ohio	63,877	64,753	80,446	72,344	67,323	89,313	75,330	72,706	70,737	75,811	78,526	79,944	891,110
Oklahoma	—	—	—	—	—	—	—	—	—	—	—	—	—
Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	1,620	4,071	1,681	4,556	672	3,932	130	4,455	—	7,222	4,586	4,722	37,647
South Dakota	4,638	4,346	5,238	5,423	5,472	5,225	5.100	4,491	4,516	4,965	4,663	5,080	59,157
Tennessee	27,380	46,177	35,568	49,880	49,170	43,195	53,672	38,304	39,415	50,079	48,339	43,121	524,300
Texas	20,540	43,975	29,401	55,742	57,392	49,969	37,273	30,053	30,576	34,470	34,147	30,964	454,502
Utah	17	189	20	—	—	—	—	—	—	—	—	—	226
Vermont	—	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	24,625	23,451	27,381	27,828	27,932	27,782	30,706	25,852	23,201	25,019	20,423	26,074	310,274
Washington	506	7,384	743	4,628	9,387	1,326	7,826	4,540	4,083	3,903	4,807	4,707	53,840
West Virginia	—	—	—	—	—	—	—	—	—	—	—	—	—
Wisconsin	870	789	968	766	1,334	1,152	736	1,053	853	453	685	579	10,238
Wyoming	5	2	3	6	5	4	5	5	5	2	4	4	50
U.S. Total	**588.138**	**644.709**	**667.498**	**742.996**	**710.415**	**729.239**	**711.208**	**626.703**	**609.703**	**685.872**	**623.445**	**664.811**	**8,004,442**

Source: Federal Highway Administration, Monthly Gasoline Reports 1987

Gasohol Consumption by States—1988

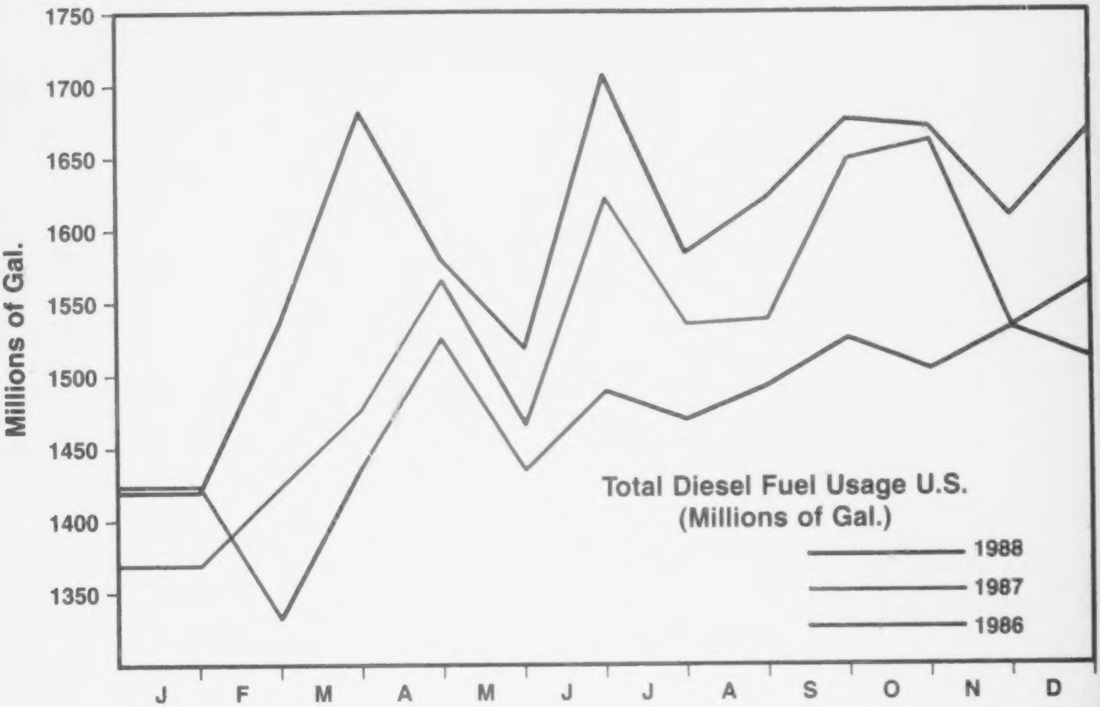
This table, prepared by Federal Highway Administration, shows gross gallons of gasohol (ethanol blends) reported by the various states. The data are obtained from the state taxation reports. In states where gasohol is taxed at the same rate as gasoline, some gasohol gallonage may be commingled with gasoline data. At any rate, this is a preliminary report and upward revisions may be expected on the basis of later data. This report indicates there was a small increase in gasohol sales in 1988.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	34,622	36,380	42,169	40,039	37,122	35,982	34,306	31,503	35,007	27,013	31,047	31,118	416,308
Alaska	33	44	28	24	15	16	10	10	9	10	6	10	215
Arizona	—	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—	—	—	—	—
California	24,118	35,759	38,888	45,443	43,011	42,709	39,689	45,933	47,005	50,524	38,098	38,058	489,235
Colorado	4,537	4,689	5,781	6,743	5,659	3,978	1,627	1,772	1,230	3,067	5,642	5,982	50,707
Connecticut	—	—	—	—	—	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	—	—	—	—	—	—	—	—	—
Dist. of Col.	29	35	53	52	19	26	13	63	46	37	37	38	402
Florida	7,552	5,714	4,914	5,453	5,704	7,142	6,162	6,424	6,521	6,133	6,133	6,133	73,985
Georgia	—	—	—	—	—	—	—	—	752	1,847	1,750	1,942	6,291
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	2,665	2,893	2,456	2,983	3,600	3,001	3,293	3,745	4,025	4,831	5,692	5,828	45,012
Illinois	104,826	104,126	119,114	114,903	115,060	116,047	139,977	116,293	116,293	116,293	116,293	116,293	1,395,518
Indiana	42,393	50,624	42,872	19,776	15,047	108,908	19,006	17,699	136,575	50,322	50,322	50,332	603,867
Iowa	33,622	31,987	33,569	34,628	32,880	30,373	23,223	53,605	31,971	31,716	33,385	31,885	402,844
Kansas	8,364	7,900	8,777	9,624	9,969	10,069	10,146	10,512	10,054	11,202	11,303	12,843	120,763
Kentucky	75,132	54,936	61,704	50,367	37,475	56,108	130,788	66,644	66,644	66,644	66,644	66,644	798,731
Louisiana	10,620	7,774	4,972	5,779	4,729	6,167	4,684	19,960	3,512	3,034	4,454	3,950	79,635
Maine	—	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	37,379	38,795	41,132	40,731	42,650	44,342	42,361	44,143	41,302	42,968	41,943	41,819	499,565
Minnesota	14,810	13,210	12,834	16,076	14,002	15,248	14,245	15,121	14,443	14,443	14,443	14,443	173,319
Mississippi	—	—	—	—	—	—	—	—	—	—	—	—	—
Missouri	—	—	—	—	—	—	—	—	—	—	—	—	—
Montana	25	110	33	3	40	—	4	13	4	26	26	26	310
Nebraska	19,572	19,360	21,048	19,595	22,438	23,733	21,680	22,518	21,294	22,876	21,916	22,043	258,073
Nevada	4,229	3,950	4,214	4,619	4,356	3,411	5,508	7,361	3,453	6,497	6,447	2,671	56,716
New Hampshire	—	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—	—	—	—	—
New Mexico	10,066	10,014	10,985	11,576	11,723	11,574	12,552	13,346	11,366	13,973	15,109	15,372	147,656
New York	—	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina	—	—	—	—	—	—	—	—	—	—	—	—	—
North Dakota	2,171	4,062	3,083	4,511	4,023	4,245	4,293	3,896	3,569	3,707	3,283	3,474	44,317
Ohio	119,612	73,300	80,914	78,937	81,398	78,924	81,710	78,705	78,332	77,501	73,320	82,933	985,586
Oklahoma	—	—	—	—	—	—	—	—	—	—	—	—	—
Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	8,449	6,371	7,403	9,774	7,039	13,394	10,977	3,922	7,402	8,303	8,303	8,303	98,641
South Dakota	4,210	4,559	4,990	4,866	5,135	5,305	4,930	4,971	4,487	4,748	4,885	5,064	58,150
Tennessee	43,232	51,800	47,117	33,362	37,100	53,705	52,201	43,716	47,721	47,227	65,516	57,530	580,227
Texas	30,644	37,041	46,813	47,922	43,691	45,571	1,524	1,087	933	1,001	1,307	2,832	260,366
Utah	62	—	30	10	—	—	—	39	54	51	60	52	358
Vermont	—	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	24,902	21,332	24,785	23,832	22,613	24,559	23,950	24,666	22,038	24,351	22,113	23,040	282,181
Washington	4,056	3,618	4,527	5,278	4,076	4,474	4,680	4,586	4,662	4,835	5,020	4,707	54,519
West Virginia	—	—	—	—	—	—	—	—	—	—	—	—	—
Wisconsin	974	1,021	1,940	903	652	5,262	1,024	319	1,212	2,282	1,467	3,119	20,175
Wyoming	5	4	5	5	5	7	7	5	5	5	5	4	62
U.S. Total	**672,911**	**631,408**	**677,150**	**637,814**	**611,231**	**754,280**	**694,570**	**624,928**	**721,921**	**647,467**	**655,953**	**658,478**	**7,988,111**

Source Federal Highway Administration Monthly Gasoline Reports 1988

Diesel Fuel Consumption Trends



Diesel Fuel Consumption by States—1988

	Rank		Gallonage		%
	1988	1987	1988(a)	1987	Change
Alabama	18	16	443,855	409,826	8.3%
Alaska	44	44	84,306	62,398	35.1
Arizona	28	30	303,840	272,404	11.5
Arkansas	22	22	351,798	328,659	7.0
California	1	1	1,782,726	1,730,685	3.0
Colorado	34	34	191,352	186,537	2.6
Connecticut	32	32	215,324	190,535	13.0
Delaware	46	45	56,125	59,494	(5.7)
Dist. of Col.	—	—	23,657	22,096	7.1
Florida	6	5	835,231	784,469	6.5
Georgia	5	6	841,982	782,834	7.6
Hawaii	49	49	22,999	21,346	7.7
Idaho	41	41	100,908	104,170	(3.2)
Illinois	7	7	781,999	739,434	5.8
Indiana	8	8	739,465	707,477	4.5
Iowa	23	23	340,061	317,818	7.0
Kansas	26	17	321,799	396,487	(18.8)
Kentucky	15	20	508,928	357,335	42.4
Louisiana	20	21	387,981	346,677	11.9
Maine	35	36	177,600	159,320	11.5
Maryland	29	28	303,374	293,067	3.5
Massachusetts	30	29	294,131	284,134	3.5
Michigan	13	11	532,806	518,342	3.0
Minnesota	24	25	331,719	317,188	4.6
Mississippi	25	27	322,838	303,056	6.5
Missouri	12	14	542,311	493,178	10.0
Montana	39	40	123,401	108,341	13.9
Nebraska	31	31	219,806	203,619	7.9
Nevada	40	39	119,540	120,910	(1.1)
New Hampshire	45	47	58,798	55,665	5.6
New Jersey	16	15	480,544	449,165	7.0
New Mexico	33	33	207,366	189,735	9.3
New York	14	13	523,044	505,774	3.4
North Carolina	9	9	720,181	587,480	22.6
North Dakota	43	43	92,209	91,005	1.3
Ohio	4	4	868,205	828,424	4.8
Oklahoma	19	19	398,037	388,470	2.3
Oregon	(b)	(b)	(b)	272,388	—
Pennsylvania	3	3	943,078	880,263	7.1
Rhode Island	48	46	44,304	56,217	(21.2)
South Carolina	27	26	311,614	286,166	8.9
South Dakota	42	42	95,672	92,769	3.1
Tennessee	11	10	581,701	565,029	3.0
Texas	2	2	1,312,739	1,373,544	(4.4)
Utah	37	37	172,441	142,663	27.5
Vermont	47	48	54,612	51,242	6.6
Virginia	10	12	593,702	508,085	16.9
Washington	21	24	355,356	314,468	13.0
West Virginia	38	38	162,261	152,395	11.9
Wisconsin	17	18	446,507	389,056	14.8
Wyoming	36	35	174,265	184,259	(5.4)
Total U.S.			**19,817,199**	**18,986,098**	**4.4**

(a) Preliminary and includes some estimates by NPN for late-reporting states; (b) Oregon discontinued collecting diesel data after 1987.
Source: Federal Highway Administration, Monthly Gasoline Reports 1988.

Highway Diesel Sales by States — 1987

Diesel Sales for motor vehicles—passenger cars, trucks and buses—climbed another 1.4% in 1987, continuing the upward swing of recent years. On-highway consumption amounted to 18.1-billion gal., compared with 17.9-billion gal. in 1986.

Off-highway sales—primarily for construction equipment and farms but occasionally including utilities for power generation—rose 4.4% in 1987, continuing the impressive increase of 1986.

(Add 000 gal.)

	On-Highway			Off-Highway		
	1987	1986	% Change	1987	1986	% Change
PAD District 1						
New England States						
Connecticut	188,172	179,230	4.9%	11,894	7,011	69.6%
Maine	157,344	140,312	12.1	13,662	11,240	21.5
Massachusetts	282,982	267,065	6.0	14,873	12,677	17.3
New Hampshire	54,975	50,895	8.0	9,256	7,638	21.2
Rhode Island	55,520	44,667	21.3	1,085	3,380	(67.9)
Vermont	50,607	40,202	25.9	4,544	6,768	(32.9)
Central Atlantic States						
Delaware	58,756	52,855	11.2	2,948	2,395	23.1
District of Columbia	21,822	21,413	2.0	165	222	(25.7)
Maryland	289,433	274,995	5.3	17,940	25,368	(29.3)
New Jersey	446,805	450,858	(.9)	22,854	36,951	(38.2)
New York	633,543	614,646	3.0	41,920	25,895	61.9
Pennsylvania	868,650	810,753	7.0	38,908	61,634	(36.9)
Lower Atlantic States						
Florida	654,444	680,975	(3.9)	71,958	63,481	13.3
Georgia	772,080	710,528	8.7	33,482	36,866	(9.2)
North Carolina	580,195	548,890	5.7	32,484	30,968	4.9
South Carolina	282,618	293,541	(3.7)	16,671	22,880	(27.1)
Virginia	501,785	486,608	3.1	28,440	36,231	(21.5)
West Virginia	150,200	132,361	13.5	20,510	29,360	(30.1)
Total	6,049,931	5,782,794	4.6	383,592	420,965	(8.9)
PAD District 2						
Illinois	724,982	695,139	4.3	59,567	55,702	6.9
Indiana	698,704	681,413	2.5	13,395	14,190	(5.6)
Iowa	322,226	288,303	11.8	13,173	11,446	15.0
Kansas	351,717	253,237	38.9	21,062	24,690	(14.7)
Kentucky	356,046	368,109	(3.3)	21,543	28,712	(25.0)
Michigan	511,402	478,218	6.9	45,303	35,543	27.0
Minnesota	313,255	288,389	8.6	17,221	22,657	(31.6)
Missouri	487,063	472,721	3.0	33,224	14,865	123.5
Nebraska	201,094	188,890	6.5	17,881	17,673	1.2
North Dakota	88,184	87,289	1.0	5,562	7,299	23.8
Ohio	751,521	797,685	(5.8)	28,130	37,379	(24.7)
Oklahoma	383,820	368,795	4.1	29,677	41,613	(28.7)
South Dakota	89,852	90,150	(.3)	11,838	9,497	24.6
Tennessee	562,038	527,263	6.6	63,348	67,809	(6.6)
Wisconsin	384,232	364,055	5.5	22,425	26,044	13.9
Total	6,226,136	5,949,656	4.6	403,348	415,120	(2.8)
PAD District 3						
Alabama	404,744	368,011	10.0	49,742	28,734	73.1
Arkansas	322,040	295,187	9.1	31,618	22,615	39.8
Louisiana	344,059	349,332	1.5	66,459	37,313	78.1
Mississippi	289,999	287,753	.8	41,235	20,194	104.2
New Mexico	189,499	182,996	3.6	22,965	24,148	(4.9)
Texas	1,319,054	1,437,192	(8.2)	232,075	205,796	12.8
Total	2,869,395	2,920,471	(1.7)	444,094	338,779	31.1
PAD District 4						
Colorado	184,224	186,918	(1.4)	28,248	46,606	(39.4)
Idaho	102,878	98,003	5.0	18,379	11,332	62.2
Montana	106,998	105,048	1.9	12,565	13,791	(8.9)
Utah	104,894	139,467	(24.8)	16,630	25,122	(33.8)
Wyoming	181,974	102,219	7.8	22,860	22,094	3.5
Total	716,968	613,655	16.8	98,682	118,945	(17.0)
PAD District 5						
Alaska	61,624	97,190	(36.6)	25,802	15,828	63.0
Arizona	269,026	280,167	(4.0)	35,506	50,053	(29.0)
California	1,256,749	1,570,607	(20.0)	201,486	173,248	16.3
Hawaii	20,219	19,618	3.1	4,288	5,075	(15.5)
Nevada	119,411	97,170	22.9	25,818	31,625	(18.4)
Oregon	269,015	244,854	9.9	50,498	33,817	49.3
Washington	314,460	332,326	(5.4)	58,938	55,909	5.4
Total	2,310,504	2,641,932	(12.5)	402,390	356,556	12.9
U.S. Total	18,172,934	17,926,508	1.4%	1,732,106	1,659,365	4.4%

Source: Energy Information Administration, Petroleum Marketing Monthly, June 1988.

Diesel Fuel Consumption by States—1987

The table below, prepared by the Federal Highway Administration, shows gross gallons of special fuels, but this is primarily diesel fuel. Included are small amounts of liquefied petroleum gases. In most cases, FHA says, the data reflect retail sales. This is a preliminary report for 1987 and includes some estimates by NPN to offset late reporting by some states.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	36,158	32,112	28,031	35,432	36,189	28,867	45,579	29,000	34,875	40,775	32,278	30,530	409,826
Alaska	1,885	449	3,173	10,114	7,491	5,011	6,018	11,985	9,971	3,386	3,897	11,054	62,398
Arizona	19,452	16,626	20,200	23,444	23,883	23,962	28,907	21,720	23,370	23,791	22,972	24,077	272,404
Arkansas	19,113	33,293	27,554	24,635	25,725	31,010	28,638	26,927	29,480	11,307	42,898	28,079	328,859
California	132,305	132,305	132,305	139,512	139,512	139,512	152,359	152,359	152,359	152,719	152,719	152,719	1,730,685
Colorado	11,178	15,883	15,341	14,633	14,396	19,148	15,844	14,814	17,652	16,225	13,958	17,465	186,537
Connecticut	15,047	13,561	13,607	15,968	15,707	16,883	16,662	15,980	16,939	16,224	16,332	17,625	190,535
Delaware	4,304	5,791	3,303	5,376	5,589	6,464	6,559	5,481	3,224	4,664	5,720	3,019	59,494
Dist. of Col.	1,563	1,858	1,872	1,994	1,735	2,137	1,922	1,849	1,766	2,000	1,800	1,800	22,098
Florida	65,242	64,643	66,054	70,073	69,005	66,740	67,902	60,661	63,120	61,301	67,380	62,348	784,469
Georgia	59,159	58,049	63,626	70,136	65,124	73,097	70,855	53,243	71,720	70,205	65,395	62,225	782,834
Hawaii	2,240	1,361	1,650	2,295	1,615	1,634	2,027	1,827	2,090	2,148	1,342	1,117	21,346
Idaho	12,405	12,696	1,148	12,630	1,075	10,747	12,366	11,788	1,492	11,672	10,158	5,993	104,170
Illinois	62,163	51,714	60,833	64,555	60,359	64,101	66,961	61,243	63,127	69,366	54,449	60,563	739,434
Indiana	57,065	54,189	64,503	68,263	57,989	51,581	56,423	78,137	42,615	88,241	44,325	44,146	707,477
Iowa	23,184	20,508	31,270	24,398	20,158	31,933	24,428	23,639	35,196	26,441	24,103	32,560	317,818
Kansas	36,454	35,109	19,419	48,179	33,200	20,548	18,239	35,823	49,307	36,469	40,763	20,977	396,487
Kentucky	24,685	28,826	30,630	28,764	29,463	30,936	29,790	29,678	30,582	26,434	35,955	31,592	357,336
Louisiana	26,296	23,205	33,934	28,548	26,377	34,315	27,038	25,144	33,502	31,073	24,702	32,543	346,677
Maine	9,785	15,960	13,218	9,949	13,939	11,973	10,590	15,124	14,672	17,169	19,084	7,857	159,320
Maryland	21,792	21,590	24,353	24,015	23,174	24,817	26,132	25,630	28,351	22,647	25,177	25,389	293,067
Massachusetts	21,438	19,881	21,189	27,298	20,861	27,841	24,455	21,130	25,749	25,705	21,438	27,149	284,134
Michigan	32,215	31,621	50,452	44,555	33,257	61,800	34,838	34,958	61,508	39,013	35,564	58,561	518,342
Minnesota	22,908	20,723	26,005	24,979	25,120	30,764	26,437	27,687	24,341	33,376	27,830	27,018	317,188
Mississippi	27,705	19,914	26,336	27,051	23,048	27,413	26,540	21,491	27,053	30,129	24,184	22,192	303,056
Missouri	40,994	30,194	51,900	38,126	37,697	41,429	43,727	38,712	46,298	47,094	30,590	46,417	493,178
Montana	8,713	8,447	7,840	8,670	7,623	13,787	9,422	6,936	10,025	12,652	6,710	9,516	108,341
Nebraska	12,341	14,873	17,985	14,257	17,959	18,653	14,672	17,800	21,532	16,456	17,100	19,991	203,619
Nevada	6,818	17,306	1,249	8,387	15,125	1,676	10,443	15,233	8,719	10,946	17,448	7,560	120,910
New Hampshire	5,185	3,506	3,993	5,106	3,376	6,533	4,148	2,476	7,156	6,967	2,313	4,906	55,665
New Jersey	32,767	33,920	24,575	36,880	36,846	37,444	42,471	44,474	39,746	39,593	40,484	39,965	449,165
New Mexico	30,528	17,34[illegible]	894	38,653	6,947	804	32,454	12,351	2,384	30,230	15,588	1,554	189,735
New York	36,758	41,044	40,227	40,181	42,423	44,331	40,709	45,206	42,166	43,166	48,271	41,292	505,774
North Carolina	27,707	52,499	53,719	42,772	50,924	60,242	41,221	50,593	57,504	43,235	53,993	53,071	587,480
North Dakota	4,618	6,288	2,285	10,536	10,331	9,958	7,208	8,092	9,334	8,699	6,818	6,838	91,005
Ohio	66,125	63,551	71,578	69,248	67,970	71,511	66,179	71,829	69,411	76,731	66,824	67,467	828,424
Oklahoma	27,869	24,884	38,064	30,591	40,088	37,042	30,386	29,636	38,110	32,002	27,273	32,525	388,470
Oregon	22,699	22,699	22,699	22,699	22,699	22,699	22,699	22,699	22,699	22,699	22,699	22,699	272,388
Pennsylvania	66,689	66,662	74,537	73,360	71,364	75,014	72,909	74,155	75,621	81,203	74,253	74,496	880,263
Rhode Island	4,399	4,399	4,399	5,211	5,211	5,211	5,509	5,509	5,509	3,620	3,620	3,620	56,217
South Carolina	18,568	24,580	26,094	4,825	24,219	39,288	18,380	24,693	32,950	24,197	14,807	33,765	[illegible]
South Dakota	7,002	6,524	8,049	7,322	7,342	7,750	8,107	8,297	8,305	9,384	7,592	7,095	92,769
Tennessee	36,646	37,059	59,358	46,230	33,010	58,968	45,672	38,018	61,016	48,139	41,237	59,676	565,029
Texas	104,797	104,474	126,466	120,424	104,734	126,137	105,316	109,594	118,362	136,879	97,080	119,281	1,373,544
Utah	7,314	22,437	6,246	17,393	9,244	10,201	4,470	22,024	5,033	10,276	21,87[illegible]	6,151	142,663
Vermont	3,312	6,310	3,813	2,638	5,451	3,428	2,835	6,291	3,568	3,592	6,930	3,074	51,242
Virginia	40,210	37,149	37,111	45,286	38,871	43,771	53,724	42,257	42,449	45,47[illegible]	37,422	[illegible]4,364	508,085
Washington	16,593	29,854	24,498	32,097	17,461	26,155	29,958	28,488	31,148	14,617	35,161	28,438	314,468
West Virginia	10,027	7,884	13,103	10,571	11,770	14,999	15,244	12,161	14,696	15,368	6,136	20,438	152,395
Wisconsin	23,100	50,197	13,153	27,628	31,574	38,806	30,760	31,416	35,146	37,608	34,037	35,633	389,056
Wyoming	9,817	9,460	10,995	7,652	17,485	11,989	12,064	13,999	26,969	24,906	27,675	11,248	184,249
U.S. Total	**1,417,337**	**1,473,415**	**1,524,836**	**1,613,339**	**1,511,735**	**1,671,060**	**1,586,160**	**1,590,257**	**1,699,917**	**1,708,206**	**1,580,158**	**1,609,678**	**18,986,098**

Source: Federal Highway Administration, Monthly Gasoline Reports, 1987.

Diesel Fuel Consumption by States—1988

The table below, prepared by the Federal Highway Administration, shows gross gallons of special fuels, but this is primarily diesel fuel. Included are small amounts of liquefied petroleum gases. In most cases, FHA says, the data reflect retail sales. This is a preliminary report for 1988 and includes some estimates by NPN to offset late reporting by some states.

(Add 000 gal.)

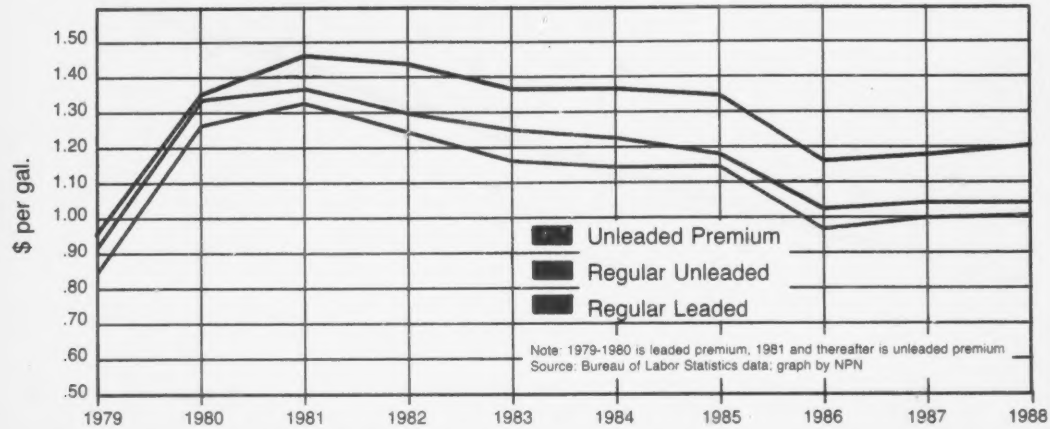
State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	39.806	30.352	34.232	44.355	32.594	33.303	41.462	33.115	36.151	45.076	35,229	38,180	443,855
Alaska	3.952	2.455	8.181	6.719	6.316	14.003	11.478	10.352	9.385	5.891	1.892	3.682	84,306
Arizona	23.744	26.456	29.754	26.283	20.529	30.889	26.043	21.186	26.713	20.280	13.262	38.701	303,840
Arkansas	11.643	41.386	28.337	26.960	35.447	30.419	25.939	31.245	30.947	27.737	25.433	36,305	351,798
California	139,700	139,700	139,700	142,117	142,117	142,117	151,639	151,639	151,639	160,786	160,786	160,786	1,782,726
Colorado	12,599	12,571	18,828	13,848	14,582	20,187	14,809	15,251	20,383	14,689	14,282	19,323	191,352
Connecticut	16,783	18,796	18,830	16,320	17,454	19,577	17,351	20,412	16,342	16,925	16,804	19,730	215,324
Delaware	4,767	5,747	3,660	5,416	5,217	3,495	4,287	5,644	3,316	4,948	5,675	3,953	56,125
Dist. of Col.	1.582	2,091	2.307	1.797	1,976	2.032	1,952	2,376	1,630	1,971	1,971	1,971	23,657
Florida	67,878	67,928	69.798	76,284	71,497	70.934	68.344	65.131	68.264	69,724	69,724	69,724	835,231
Georgia	72,748	56,810	77.589	53,715	64.669	78.013	65.543	71,945	72.024	74,793	84,654	69,479	841,982
Hawaii	2,179	1,566	1,683	2,129	1,841	1,765	2,238	1,746	1,917	2,238	1,709	1,988	22,999
Idaho	8,269	13,300	5,189	9,966	10,669	115	8,769	14,308	4,260	10,545	13,513	2,005	100,908
Illinois	61,852	58,419	62,752	67,356	62,965	67,726	68,861	65,746	66,119	69,863	65,166	65,166	781,999
Indiana	32,888	61,796	64,035	70,510	59,004	77,798	65,238	52,784	60,426	63,659	63,846	67,491	739,465
Iowa	29.312	19.954	35,058	29,128	27,809	31,421	20,785	34,894	32.931	29,627	27,856	21,266	340,061
Kansas	19,958	30.906	24.767	24,222	24,217	36.930	28.630	30.928	27.918	17,347	25.273	30.703	321,799
Kentucky	27.231	29.651	38.038	29.583	35.389	38.202	29.117	56,931	68.177	57,699	56.499	42,111	508,928
Louisiana	27.462	27,341	37.469	29,471	31,107	36.804	32.880	30,111	36.278	32,125	30.596	36,337	387,981
Maine	17,319	16.810	9.787	15.799	16.378	9,090	16.679	15,776	13.275	18,427	14,907	13,353	177,600
Maryland	20,044	24,612	27,718	23,565	24,086	28,028	26,030	26,524	26,034	24,826	27,063	24,844	303,374
Massachusetts	25,250	19,732	21,593	29,000	23,814	29,555	22,403	21,803	23,063	27,488	20,191	30,239	294,131
Michigan	34,746	33,376	49,948	46,328	35,535	56,032	39,071	37,222	62,062	41,002	36,935	60,549	532,806
Minnesota	25,688	25,619	28,961	29,541	25,430	29,749	28,703	27,455	27,643	27,643	27,643	27,643	331,719
Mississippi	27,108	22,857	27,784	28,826	23,048	26.789	30,170	25,452	26,811	33,041	23,528	27,424	322,838
Missouri	43,113	32,804	49.763	40,211	39,851	53,531	37,220	39,860	53,723	47,914	43,623	60,698	542,311
Montana	11,125	7,967	7.426	13,536	6,329	7,818	13,396	9,046	9.557	13,459	13,459	10,283	123,401
Nebraska	14,355	15.307	21,273	15,485	18,466	22,173	15,513	19,551	22,838	18,123	19,396	17,326	219,806
Nevada	7,784	18,206	7,592	7,136	18,909	4,524	8,032	3,279	8,442	9,402	11,867	14,367	119,540
New Hampshire	6,807	2,433	5,467	6,131	3,679	6,533	7,331	3,349	4,644	6,704	3,049	2,671	58,798
New Jersey	44,129	33,503	37,779	41,051	38,392	48,765	37,411	39,015	45,961	39,446	37,310	37,722	480,544
New Mexico	29,309	14,841	4,238	34,474	15,260	5,957	41,707	8,684	2,413	45,144	4,739	602	207,368
New York	38,865	43,350	43,834	42,160	47,769	44,226	39,275	49,217	43,587	43,587	43,587	43,587	523,044
North Carolina	50,656	83,749	62,162	83,446	59,965	63,647	40,810	56,224	55,175	49,388	56,458	58,501	720,181
North Dakota	5,254	6,688	7,045	7,671	7,632	8,865	8,047	7,495	9,336	9,334	7,359	7,483	92,209
Ohio	67,632	65,909	87,030	68,776	71,587	71,845	66,152	72,424	73,915	78,262	73,320	73,353	868,205
Oklahoma	28,790	27,675	39,695	28,545	31,831	39,265	31,193	31,061	38,900	33,254	31,655	36,173	398,037
Oregon (a)	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	71,928	75,682	82,515	77,143	77,658	82,069	74,589	82,617	80,157	83,717	78,563	76,440	943,078
Rhode Island	3,461	3,461	3,461	3,864	3,864	3,864	3,740	3,740	3,740	3,703	3,703	3,703	44,304
South Carolina	20,655	18,909	43,234	15,813	20,303	32,340	28,080	25,598	28,778	25,968	25,968	25,968	311,614
South Dakota	7,690	7,411	7,518	6,746	7,713	7,782	8,375	9,206	9,071	10,310	7,225	6,625	95,672
Tennessee	39,068	39,525	53,682	47,022	45,481	60,448	43,331	45,052	58,649	44,317	43,364	61,762	581,701
Texas	85,726	103,731	125,647	103,094	90,510	127,536	104,681	111,802	121,950	106,227	108,372	123,463	1,312,739
Utah	6,678	42,830	6,788	6,723	24,031	9,563	3,014	24,991	7,239	6,559	28,364	5,861	172,441
Vermont	3,509	7,154	2,510	2,613	6,770	3,264	3,264	7,857	2,411	2,709	9,332	3,219	54,612
Virginia	39,078	39,080	48,340	45,702	42,251	49,768	42,766	50,535	42,731	49,349	45,847	43,255	539,702
Washington	32,295	34,028	26,065	22,701	37,691	29,314	32,581	31,373	23,301	28,149	27,774	30,084	355,356
West Virginia	9,379	13,189	12,877	12,269	14,003	4,481	22,575	16,164	12,241	15,040	15,992	14,051	162,261
Wisconsin	34,399	34,883	71,588	33,801	3,991	39,239	35,410	38,556	39,276	40,309	37,337	37,718	446,507
Wyoming	11,462	26,737	12,634	12,986	13,272	12,949	13,675	14,897	15,160	14,876	13,083	12,354	174,265
U.S. Total	**1,467,655**	**1,589,283**	**1,736,161**	**1,628,337**	**1,560,898**	**1,754,739**	**1,640,579**	**1,671,569**	**1,726,903**	**1,719,397**	**1,655,583**	**1,720,095**	**19,817,199**

(a) Oregon no longer collects diesel data.

Source: Federal Highway Administration, Monthly Gasoline Reports, 1988.

Average Pump Prices for Gasoline 1979-1988

($ per gal. including taxes and reflecting full-service etc.)



Note: 1979-1980 is leaded premium, 1981 and thereafter is unleaded premium
Source: Bureau of Labor Statistics data; graph by NPN

Gasoline Prices by Grades and Months

(U.S. averages, retail, in ¢ per gal. including taxes and types of service.)

		Leaded Regular	Unleaded Regular	Unleaded Premium (a)	Average for All Types
1988	January	88.1	93.3	109.5	94.7
	February	85.9	91.3	108.2	92.8
	March	85.0	90.4	107.4	92.0
	April	88.3	93.0	108.8	94.6
	May	91.1	95.5	110.5	97.0
	June	91.0	95.5	111.1	97.1
	July	92.3	96.7	112.3	98.4
	August	94.5	98.7	113.8	100.4
	September	93.3	97.4	113.0	99.2
	October	91.0	95.6	111.9	97.5
	November	90.4	94.9	111.6	97.2
	December	88.5	93.0	110.1	95.3
	Average	**90.0**	**94.6**	**110.7**	**96.4**
1987	January	80.6	86.2	100.7	86.8
	February	34.8	90.5	104.7	91.1
	March	85.6	91.2	105.2	91.8
	April	87.9	93.4	107.3	94.0
	May	88.8	94.1	107.9	94.8
	June	90.6	95.8	109.8	96.6
	July	92.1	97.1	111.5	98.0
	August	94.6	99.5	113.9	100.4
	September	94.0	99.0	113.6	100.0
	October	93.1	97.6	112.8	98.8
	November	92.8	97.6	112.5	98.7
	December	91.2	96.1	111.9	97.5
	Average	**89.7**	**94.8**	**109.3**	**95.7**
1986	January	110.7	119.4	133.6	119.0
	February	103.4	112.0	128.2	111.9
	March	89.4	98.1	116.0	98.3
	April	81.5	88.8	106.1	89.5
	May	85.2	92.3	107.5	92.7
	June	88.5	95.5	110.0	95.8
	July	82.2	89.0	104.5	89.5
	August	77.8	84.3	99.9	84.8
	September	79.7	86.0	101.0	86.4
	October	77.1	83.1	98.7	83.7
	November	76.2	82.1	98.0	82.7
	December	76.4	82.3	98.4	83.0
	Average	**85.7**	**92.7**	**108.5**	**93.1**
Average	1985	111.5	120.2	134.0	119.6
	1984	112.9	121.2	136.6(a)	119.8
	1983	115.7	124.1	138.3(a)	122.5
	1982	122.2	129.6	141.5(a)	128.1
	1981(b)	131.1	137.8	147.0(a)	135.3
	1980	119.1	124.5	NA	122.1
	1978	62.6	67.0	NA	65.2
	1976	59.0	61.4	NA	NA

(a) In January 1984, this series was switched from leaded premium to unleaded premium to reflect changing market conditions.

(b) Data for 1981 and earlier are for leaded premium. Beginning in September 1981, Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. In the fourth column above, gasohol is included and unleaded premium is weighted more heavily.

Source: Energy Information Administation, Monthly Energy Review, October 1988.

Retail Gasoline Prices by Months and Grades

All Types

Selected Local Areas	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
SIZE A (MORE THAN 1,200,000 POPULATION)													
Chicago-N.Western Ind.	$1.011	$1.013	$1.001	$1.015	$1.038	$1.042	$1.065	$1.106	$1.091	$1.055	$1.051	$1.040	$1.044
L.A.-Long Beach, Anaheim	.893	.860	.863	.935	.966	.971	.977	.977	.976	.955	.925	.893	.933
N.Y., N.Y.-N.Eastern N.J.	1.031	1.012	1.001	.995	.994	1.007	1.023	1.041	1.038	1.034	1.034	1.035	1.020
Philadelphia, Pa.-N.J.	.942	.932	.915	.915	.925	.927	.941	.947	.947	.948	.953	.958	.938
San Francisco-Oakland	.975	.969	.990	1.001	1.016	1.028	1.034	1.032	1.043	1.030	.992	.967	1.006
SIZE B (360,000 to 1,200,000 POPULATION)													
Baltimore, Md.	1.007	1.000	1.000	1.003	1.019	1.022	1.029	1.048	1.041	1.038	1.033	1.036	1.023
Boston, Mass.	1.010	.997	.982	.972	.987	.995	1.004	1.023	1.023	1.026	1.025	1.025	1.006
Cleveland, Ohio	.950	.918	.926	.960	1.027	1.027	1.019	1.042	1.016	.983	.983	.965	.985
Miami, Fla.	1.035	1.017	1.008	1.004	1.028	1.039	1.054	1.019	1.029	1.031	1.019	1.018	1.025
St. Louis, Mo.-Ill.	.933	.917	.900	.903	.931	.926	.937	.951	.935	.920	.904	.893	.921
Washington.-Md.-Va.	1.084	1.083	1.081	1.081	1.097	1.099	1.105	1.120	1.116	1.118	1.113	1.115	1.101
SIZE C (50,000 to 360,000 POPULATION)													
Dallas-Fort Worth, Tex.	.913	.908	.888	.886	.899	.899	.906	.925	.933	.920	.904	.896	.906
Detroit, Mich.	.944	.914	.898	.954	.987	.975	.987	1.030	.999	.957	.990	.963	.967
Houston, Tex.	.892	.878	.864	.872	.894	.896	.927	.959	.953	.938	.928	.925	.911
Pittsburgh, Pa.	.912	.882	.851	.864	.898	.911	.915	.937	.918	.903	.924	.934	.904

Leaded Regular

SIZE A (MORE THAN 1,200,000 POPULATION)													
Chicago-N.Western Ind.	.947	.959	.938	.964	.987	.991	1.017	1.062	1.031	.960	.973	.959	.982
L.A.-Long Beach, Anaheim	.869	.813	.821	.893	.926	.929	.941	.939	.938	.915	.885	.855	.894
N.Y., N.Y.-N.Eastern N.J.	.928	.912	.906	.898	.902	.908	.930	.939	.940	.928	.924	.907	.919
Philadelphia-N.J.	.898	.893	.877	.879	.891	.891	.910	.918	.916	.920	.934	.944	.906
San Francisco-Oakland	.915	.910	.876	.894	.916	.925	.930	.935	.938	.928	.878	.844	.907
SIZE B (360,000 to 1,200,000 POPULATION)													
Baltimore, Md.	.955	.944	.942	.943	.936	.941	.947	.976	.965	.969	.970	.983	.956
Boston, Mass.	.929	.920	.907	.890	.902	.911	.913	.929	.935	.932	.951	.955	.923
Cleveland, Ohio	.873	.838	.816	.831	.906	.907	.902	NA	NA	NA	NA	NA	.868
Miami, Fla.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
St. Louis, Mo.-Ill.	.880	.865	.847	.843	.871	.867	.886	.902	.885	.862	.842	.834	.865
Washington-Md.-Va.	.938	.932	.925	NA	NA	NA	NA	NA	NA	NA	NA	NA	.932
SIZE C (50,000 to 360,000 POPULATION)													
Dallas-Fort Worth, Tex.	.875	.868	.852	.852	.865	.867	.877	.898	.903	.891	.881	.865	.875
Detroit, Mich.	.879	.846	.829	.894	.932	.919	.945	.981	.953	.908	.934	.913	.911
Houston, Tex.	.832	.817	.803	.817	.843	.850	.886	.922	.905	.878	.838	.837	.852
Pittsburgh, Pa.	.884	.855	.822	.833	.868	.880	.882	.925	.897	.872	.922	.949	.882

Unleaded Regular

SIZE A (MORE THAN 1,200,000 POPULATION)													
Chicago-N.Western Ind.	.989	.986	.974	.984	1.010	1.014	1.035	1.080	1.065	1.028	1.022	1.009	1.016
L.A.-Long Beach, Anaheim.	.866	.837	.839	.914	.947	.952	.955	.956	.953	.934	.901	.866	.910
N.Y., N.Y.-N.Eastern N.J.	.971	.951	.938	.934	.935	.947	.963	.980	.977	.970	.969	.966	.958
Philadelphia-N.J.	.907	.892	.876	.875	.885	.885	.898	.904	.906	.901	.904	.908	.895
San Francisco-Oakland	.976	.971	1.002	1.009	1.024	1.035	1.036	1.033	1.051	1.029	.993	.968	1.011
SIZE B (360,000 to 1,200,000 POPULATION)													
Baltimore, Md.	.968	.962	.963	.965	.979	.980	.984	1.002	.998	.990	.983	.984	.980
Boston, Mass.	.979	.967	.948	.940	.957	.964	.974	.993	.989	.988	.981	.978	.972
Cleveland, Ohio	.926	.894	.898	.931	.999	.999	.988	.999	.968	.931	.928	.914	.948
Miami, Fla.	.977	.956	.946	.941	.963	.975	.991	.970	.980	.977	.967	.964	.967
St. Louis, Mo.-Ill.	.914	.896	.879	.886	.915	.912	.919	.932	.916	.902	.887	.876	.903
Washington-Md.-Va.	1.031	1.028	1.026	1.030	1.040	1.042	1.047	1.065	1.056	1.056	1.052	1.051	1.044
SIZE C (50,000 to 360,000 POPULATION)													
Dallas-Fort Worth, Tex.	.897	.893	.872	.870	.883	.878	.884	.902	.913	.901	.884	.877	.888
Detroit, Mich.	.952	.922	.907	.958	.990	.976	.984	1.030	1.000	.956	.991	.962	.969
Houston, Tex.	.859	.843	.829	.836	.859	.861	.879	.912	.904	.893	.889	.886	.871
Pittsburgh, Pa.	.895	.863	.831	.843	.877	.889	.895	.913	.895	.882	.895	.902	.882

Unleaded Premium

SIZE A (MORE THAN 1,200,000 POPULATION)													
Chicago-N.Western Ind.	1.161	1.168	1.165	1.180	1.196	1.201	1.223	1.247	1.239	1.215	1.208	1.214	1.201
L.A.-Long Beach, Anaheim	1.071	1.051	1.046	1.103	1.125	1.131	1.141	1.140	1.143	1.124	1.104	1.075	1.105
N.Y., N.Y.-N.Eastern N.J.	1.151	1.137	1.125	1.116	1.111	1.129	1.143	1.170	1.165	1.162	1.158	1.164	1.144
Philadelphia-N.J.	1.091	1.080	1.060	1.062	1.069	1.079	1.087	1.090	1.086	1.095	1.099	1.103	1.083
San Francisco-Oakland	1.114	1.106	1.080	1.090	1.099	1.114	1.129	1.123	1.128	1.128	1.100	1.081	1.108
SIZE B (360,000 to 1,200,000 POPULATION)													
Baltimore, Md.	1.136	1.132	1.133	1.140	1.159	1.160	1.170	1.188	1.176	1.176	1.173	1.173	1.160
Boston, Mass.	1.134	1.124	1.115	1.103	1.118	1.123	1.132	1.150	1.151	1.152	1.148	1.149	1.133
Cleveland, Ohio	1.140	1.107	1.122	1.158	1.213	1.214	1.218	1.192	1.162	1.143	1.145	1.118	1.161
Miami, Fla.	1.098	1.083	1.075	1.071	1.098	1.108	1.123	1.093	1.100	1.109	1.094	1.095	1.096
St. Louis, Mo.-Ill.	1.116	1.113	1.106	1.107	1.129	1.118	1.130	1.141	1.135	1.119	1.107	1.093	1.118
Washington-Md.-Va.	1.287	1.291	1.292	1.288	1.299	1.299	1.304	1.317	1.314	1.313	1.310	1.312	1.302
SIZE C (50,000 to 360,000 POPULATION)													
Dallas-Fort Worth, Tex.	1.034	1.029	1.002	1.002	1.015	1.023	1.032	1.051	1.054	1.036	1.013	1.013	1.025
Detroit, Mich.	1.073	1.051	1.035	1.099	1.133	1.134	1.136	1.181	1.135	1.114	1.148	1.123	1.114
Houston, Tex.	1.049	1.039	1.026	1.032	1.045	1.042	1.066	1.095	1.096	1.083	1.081	1.078	1.061
Pittsburgh, Pa.	1.069	1.041	1.016	1.034	1.066	1.084	1.084	1.089	1.076	1.062	1.082	1.080	1.065

and Population Areas—1988[(a)]

Population Sizes and Regions

Leaded Regular

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
U.S. city average	$0.881	$0.859	$0.850	$0.883	$0.911	$0.910	$0.923	$0.945	$0.933	$0.910	$0.904	$0.[illegible]85	$0.900
Region and area size													
Northeast urban	.913	.896	.879	.876	.895	.902	.912	.929	.924	.917	.926	.930	.908
Size A—More than 1,200,000	.911	.898	.884	.880	.893	.898	.913	.928	.925	.917	.928	.932	.909
Size B—500,000 to 1,200,000	.916	.896	.879	.865	.896	.898	.905	.922	.915	.906	.889	.894	.898
Size C—50,000 to 500,000	.910	.876	.853	.871	.893	.901	.903	.923	.909	.908	.919	.920	.899
North Central urban	.889	.865	.855	.897	.937	.927	.939	.981	.950	.904	.920	.901	.914
Size A—More than 1,200,000	.885	.864	.853	.894	.931	.923	.942	.984	.951	.901	.918	.898	.912
Size B—360,000 to 1,200,000	.837	.833	.841	.877	.940	.900	.902	.974	.934	.874	.908	.873	.891
Size C—50,000 to 360,000	.916	.897	.881	.934	.961	.949	.965	.995	.977	.925	.960	.953	.943
South urban	.862	.847	.843	.864	.887	.885	.904	.932	.919	.901	.899	.885	.886
Size A—More than 1,200,000	.871	.861	.847	.858	.870	.872	.893	.913	.905	.889	.880	.873	.878
Size B—450,000 to 1,200,000	.889	.872	.867	.889	.918	.917	.926	.959	.949	.938	.929	.904	.913
Size C—50,000 to 450,000	.830	.818	.822	.851	.875	.869	.892	.924	.906	.885	.881	.867	.868
West urban	.884	.852	.845	.896	.922	.927	.934	.936	.936	.921	.892	.864	.901
Size A—More than 1,250,000	.877	.839	.833	.889	.920	.922	.929	.930	.931	.914	.885	.856	.694
Size C—50,000 to 330,000	.905	.884	.873	.903	.926	.931	.939	.953	.946	.923	.901	.861	.912

Unleaded Regular

U.S. city average	$0.933	$0.913	$0.904	$0.930	$0.955	$0.955	$0.967	$0.987	$0.974	$0.957	$0.949	$0.930	$0.946
Region and area size													
Northeast urban	.968	.948	.931	.929	.940	.948	.959	.974	.969	.959	.963	.962	.954
Size A—More than 1,200,000	.950	.931	.915	.912	.920	.929	.942	.957	.954	.948	.949	.948	.938
Size B—500,000 to 1,200,000	1.057	1.043	1.026	1.024	1.041	1.045	1.054	1.070	1.068	1.042	1.045	1.040	1.046
Size C—50,000 to 500,000	.948	.915	.895	.905	.915	.919	.925	.939	.926	.914	.922	.928	.921
North Central urban	.931	.911	.899	.937	.975	.964	.973	1.013	.985	.951	.958	.925	.952
Size A—More than 1,200,000	.945	.925	.908	.943	.978	.972	.984	1.020	.992	.960	.957	.932	.960
Size B—360,000 to 1,200,000	.858	.852	.856	.897	.948	.914	.909	.973	.936	.877	.925	.852	.900
Size C—50,000 to 360,000	.941	.924	.911	.960	.996	.983	.998	1.036	1.016	.972	1.006	.994	.978
South urban	.925	.908	.899	.916	.937	.936	.952	.976	.962	.950	.945	.935	.937
Size A—More than 1,200,000	.935	.923	.911	.916	.935	.937	.943	.962	.959	.951	.943	.940	.938
Size B—450,000 to 1,200,000	.941	.920	.898	.919	.941	.938	.948	.978	.961	.955	.942	.926	.939
Size C—50,000 to 450,000	.898	.880	.878	.912	.937	.932	.965	.987	.961	.945	.948	.931	.931
West urban	.917	.894	.894	.942	.968	.974	.984	.983	.983	.967	.933	.904	.945
Size A—More than 1,250,000	.894	.868	.871	.927	.957	.961	.964	.966	.967	.951	.920	.890	.928
Size C—50,000 to 330,000	.956	.938	.917	.947	.969	.987	.992	1.001	.995	.971	.943	.901	.960

Unleaded Premium

U.S. city average	$1.095	$1.082	$1.074	$1.088	$1.105	$1.111	$1.123	$1.138	$1.130	$1.119	$1.116	$1.101	$1.107
Region and area size													
Northeast urban	1.136	1.120	1.106	1.100	1.106	1.120	1.129	1.152	1.147	1.146	1.147	1.153	1.130
Size A—More than 1,200,000	1.136	1.122	1.109	1.103	1.104	1.118	1.130	1.152	1.147	1.146	1.145	1.150	1.130
Size B—500,000 to 1,200,000	1.149	1.138	1.123	1.120	1.138	1.142	1.158	1.182	1.176	1.175	1.186	1.185	1.156
Size C—50,000 to 500,000	1.128	1.094	1.071	1.073	1.085	1.105	1.093	1.121	1.109	1.106	1.109	1.132	1.102
North Central urban	1.060	1.058	1.054	1.090	1.126	1.115	1.130	1.160	1.135	1.101	1.139	1.112	1.107
Size A—More than 1,200,000	1.113	1.106	1.106	1.136	1.167	1.165	1.181	1.201	1.179	1.160	1.177	1.162	1.154
Size B—360,000 to 1,200,000	1.035	1.039	1.033	1.069	1.127	1.094	1.073	1.152	1.110	1.053	1.099	1.039	1.076
Size C—50,000 to 360,000	.947	.950	.942	.993	1.026	1.004	1.052	1.069	1.049	.994	1.043	1.032	1.002
South urban	1.086	1.074	1.067	1.074	1.092	1.096	1.111	1.125	1.117	1.108	1.097	1.079	1.094
Size A—More than 1,200,000	1.112	1.103	1.093	1.097	1.118	1.122	1.130	1.136	1.136	1.130	1.122	1.121	1.114
Size B—450,000 to 1,200,000	1.077	1.062	1.055	1.061	1.081	1.079	1.093	1.114	1.105	1.091	1.074	1.031	1.077
Size C—50,000 to 450,000	1.073	1.061	1.068	1.077	1.087	1.095	1.109	1.126	1.109	1.103	1.104	1.099	1.093
West urban	1.084	1.064	1.059	1.096	1.113	1.123	1.131	1.130	1.129	1.116	1.094	1.070	1.101
Size A—More than 1,250,000	1.076	1.057	1.053	1.092	1.109	1.119	1.129	1.127	1.130	1.119	1.098	1.074	1.099
Size C—50,000 to 330,000	1.113	1.088	1.075	1.110	1.125	1.153	1.167	1.174	1.115	1.095	1.074	1.058	1.112

(a) These prices are in $/gal. and include federal and state taxes and are representative of full service, self service and mini service. The selected local areas and the population groups are Standard Metropolitan Statistical Areas as defined by BLS and the U.S. Census Bureau.

Source: Bureau of Labor Statistics, Dept. of Commerce

(Continued on Next Page)

Retail Gasoline Prices (continued)[a]

Population Sizes and Regions

All Types

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
U.S. city average	$0.947	$0.928	$0.920	$0.946	$0.970	$0.971	$0.984	$1.004	$0.992	$0.976	$0.972	$0.953	$0.964
Region and area size													
Northeast urban	1.002	.983	.967	.964	.975	.984	.995	1.012	1.007	1.002	1.008	1.010	.992
Size A—More than 1,200,000	.997	.980	.965	.961	.968	.978	.992	1.008	1.005	1.002	1.005	1.007	.989
Size B—500,000 to 1,200,000	1.056	1.041	1.025	1.020	1.040	1.043	1.054	1.072	1.068	1.052	1.063	1.060	1.050
Size C—50,000 to 500,000	.977	.943	.921	.932	.944	.951	.953	.971	.958	.951	.959	.968	.952
North Central urban	.934	.915	.904	.943	.981	.971	.982	1.021	.993	.957	.976	.947	.960
Size A—More than 1,200,000	.950	.932	.919	.954	.989	.983	.997	1.033	1.005	.973	.986	.962	.974
Size B—360,000 to 1,200,000	.877	.873	.876	.915	.971	.936	.930	.998	.960	.906	.946	.889	.923
Size C—50,000 to 360,000	.933	.919	.905	.955	.988	.974	.994	1.027	1.008	.961	1.000	.989	.971
South urban	.942	.927	.920	.936	.957	.957	.975	.999	.986	.973	.970	.955	.958
Size A—More than 1,200,000	.966	.955	.944	.950	.969	.972	.983	.997	.995	.986	.978	.975	.973
Size B—450,000 to 1,200,000	.957	.939	.927	.944	.967	.966	.977	1.005	.993	.983	.974	.944	.965
Size C—50,000 to 450,000	.900	.886	.887	.915	.938	.934	.965	.990	.968	.952	.954	.939	.936
West urban	.926	.901	.901	.947	.973	.979	.988	.988	.988	.973	.943	.915	.952
Size A—More than 1,250,000	.910	.884	.887	.940	.969	.973	.978	.979	.981	.965	.936	.908	.943
Size C—50,000 to 330,000	.953	.933	.917	.947	.969	.983	.989	1.001	.987	.964	.940	.901	.957

Retail Gasoline Prices For Selected Areas[a]

	1988				1987				1986			
Standard Metropolitan Statistical Areas	Lead Reg.	Unld. Reg.	Unld. Prem.	All Types	Lead Reg.	Unld. Reg.	Unld. Prem.	All Types	Lead Reg.	Unld. Reg.	Unld. Prem.	All Types
U.S. City Average	$0.900	$0.946	$1.107	$0.964	$0.897	$0.948	$1.093	$0.979	$0.857	$0.928	$1.085	$0.931
Size A - (Population more than 1,200,000)												
Chicago-N.W.Western Ind.	982	1.016	1.201	1.044	968	1.004	1.184	1.025	911	953	1.173	978
L.A.-Long Beach, Anaheim	894	910	1.105	933	901	931	1.107	943	829	957	1.129	967
N.Y., N.Y.-N.Eastern N.J.	919	958	1.144	1.020	903	936	1.104	986	859	908	1.078	954
Philadelphia, PA-N.J.	906	895	1.083	938	891	895	1.070	929	869	880	1.057	913
San Francisco-Oakland	907	1.011	1.108	1.006	870	955	1.081	949	869	976	1.155	974
Size B - (Population 360,000 to 1,250,000)												
Baltimore, Md.	956	980	1.160	1.023	913	935	1.100	970	878	921	1.101	954
Boston, Mass.	923	972	1.133	1.006	883	929	1.080	958	858	922	1.078	946
Cleveland, Ohio	868	948	1.161	985	888	941	1.143	961	821	902	1.118	925
Miami, Fla.	NA	967	1.096	1.025	949	983	1.087	1.023	895	953	1.043	975
St. Louis, Mo.-Ill.	865	903	1.118	921	853	899	1.085	910	800	865	1.083	876
Washington, D.C.-Md.-Va.	932	1.044	1.302	1.101	911	998	1.246	1.042	891	983	1.228	1.022
Size C - (Population 50,000 to 360,000)												
Dallas-Fort Worth, Tex.	875	888	1.025	906	856	881	1.006	892	788	831	962	836
Detroit, Mich.	911	969	1.114	967	900	972	1.097	964	833	944	1.048	923
Houston, Tex.	852	871	1.061	911	852	880	1.068	908	753	796	1.000	821
Pittsburgh, Pa.	882	882	1.065	904	887	899	1.078	916	855	883	1.057	894

(a) See footnote on preceding page.

Source: Bureau of Labor Statistics, U.S. Dept. of Commerce.

Wholesale Price Trends Through 1987

	Refinery products in eight refinery markets representing total U.S.						Crude	
					Average 4 products			
Year	Motor gasoline c/gal.	Kero-sine c/gal.	Light fuel c/gal.	Heavy fuel c/gal.	c/gal.	$/bbl.	8 areas $/bbl.	Products vs. crude $/bbl.
1988 (a)	50.31	50.72	46.10	38.72	46.22	19.41	12.66	6.75
1987	53.22	56.75	52.25	45.36	50.89	21.37	15.41	5.96
1986	47.74	49.92	44.91	36.23	43.97	18.47	12.51	5.96
1985	81.11	81.69	76.66	56.41	73.06	30.69	24.09	6.60
1984	81.14	84.75	79.62	59.14	74.49	31.29	25.88	5.41
1983	86.97	85.12	80.05	57.30	76.94	32.31	26.19	6.12
1982	94.56	97.18	91.95	57.80	83.27	34.97	28.52	6.45
1981	101.63	101.03	97.20	61.17	88.75	37.28	31.77	5.51

(a) Preliminary.

Source: Independent Petroleum Assn. of America. Product figures reflect trends in prices but not the actual sales realizations for producers or refiners.

Supplier Gasoline Prices, by Type of Seller

(¢ per gal., excluding taxes)

	Major Refiners			Other Refiners			Average		
	Sales to End-Users			Sales to End-Users			Sales to End-Users		
Year Month	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale
1988									
January	66.9	52.9	55.5	62.5	53.7	47.3	65.6	53.3	53.7
February	65.1	54.5	55.5	60.6	52.6	48.3	63.8	53.6	53.9
March	64.4	53.8	55.4	60.4	51.4	49.1	63.3	53.0	53.8
April	67.8	58.1	59.9	64.1	56.2	54.0	66.8	57.4	58.4
May	70.1	60.0	61.3	66.5	58.3	55.2	69.1	59.5	59.8
June	69.8	59.9	60.8	66.0	58.0	54.5	68.7	59.3	59.2
July	71.6	62.3	63.8	67.6	58.6	58.0	70.5	60.8	62.3
August	73.6	62.5	62.9	69.8	59.7	56.4	72.6	61.5	61.3
September	72.1	58.6	59.8	67.9	54.9	52.2	70.9	57.2	58.0
October	70.2	57.1	59.2	66.0	51.3	51.4	69.1	54.7	57.3
November	69.6	58.6	60.0	65.7	52.0	52.6	68.5	56.0	58.1
December	68.2	55.5	56.9	64.2	49.8	49.0	67.1	53.2	54.9
1988 Average	**69.2**	**57.7**	**59.3**	**65.2**	**54.4**	**52.6**	**68.1**	**56.4**	**57.7**
1987									
January	61.3	53.6	54.2	58.0	51.1	50.0	60.4	52.8	53.3
February	63.9	56.7	56.3	61.0	51.6	51.1	63.1	54.2	55.1
March	64.8	55.8	57.5	61.5	51.5	52.2	63.9	53.9	56.3
April	66.6	58.3	59.1	63.3	55.1	53.8	65.7	57.1	57.8
May	68.0	59.7	60.7	64.5	56.9	55.7	67.0	58.7	59.5
June	69.7	61.0	61.8	66.1	55.9	57.5	68.7	58.5	60.8
July	71.3	62.5	63.4	68.0	58.3	59.4	70.4	60.9	62.5
August	73.3	63.6	64.7	70.2	58.7	60.0	72.5	61.4	63.6
September	72.2	61.1	61.8	69.4	58.3	56.5	71.4	60.0	60.6
October	71.4	61.2	61.7	68.2	58.4	56.8	70.5	60.2	60.5
November	71.2	61.3	61.2	67.5	55.9	55.4	70.3	58.8	59.9
December	69.5	56.9	57.0	65.2	53.0	49.7	68.4	68.4	55.3
1987 Average	**67.7**	**59.2**	**60.1**	**65.3**	**55.2**	**55.0**	**67.8**	**67.8**	**58.9**
1986 Average	**64.1**	**57.6**	**54.4**	**61.2**	**52.7**	**48.7**	**63.2**	**55.8**	**53.1**
1984 Average	**92.0**	**85.7**	**84.2**	**90.0**	**84.9**	**80.2**	**91.4**	**85.6**	**83.2**
1982 Average	**108.2**	**101.1**	**98.3**	**105.6**	**100.2**	**94.3**	**107.2**	**100.9**	**97.3**
1980 Average	**105.6**	**98.7**	**95.1**	**103.0**	**97.8**	**91.3**	**104.6**	**95.5**	**94.1**

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1988, published March 1989. (Table 13)

Supplier Gasoline Prices, by Grade and Type

(¢ per gal., excluding taxes)

	Leaded Regular			Unleaded Regular			Premium		
	Sales to End-Users			Sales to End-Users			Sales to End-Users		
Year Month	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale
1988									
January	60.4	51.9	50.2	62.8	51.7	51.1	77.1	62.8	63.1
February	58.6	52.3	50.6	61.2	52.0	51.3	75.0	52.7	62.9
March	57.8	52.2	51.1	60.4	51.9	51.4	75.1	59.9	62.4
April	61.5	57.9	56.2	64.0	56.0	55.8	78.0	65.5	66.8
May	64.0	59.2	57.3	66.3	58.2	57.2	80.2	67.5	68.6
June	63.4	58.7	56.7	65.7	57.8	56.3	80.0	68.6	68.5
July	65.0	61.1	60.3	67.5	59.2	59.3	81.7	70.4	71.8
August	67.2	62.1	59.2	69.6	59.9	58.2	83.7	69.4	70.9
September	65.6	57.8	55.2	67.8	55.4	54.7	82.3	66.4	68.1
October	63.5	53.6	54.0	65.6	53.1	53.9	80.7	64.2	68.0
November	62.6	54.1	54.4	65.2	54.3	54.8	80.3	66.7	68.9
December	61.2	50.0	50.6	63.5	51.7	51.5	79.0	63.1	65.8
1988 Average	**62.5**	**55.5**	**54.8**	**65.0**	**55.0**	**54.7**	**79.5**	**65.3**	**67.3**
1987									
January	54.8	52.1	51.0	58.9	51.9	51.5	71.5	60.6	60.8
February	57.8	53.2	52.6	61.4	53.3	53.3	74.6	62.1	63.1
March	58.7	53.9	53.9	62.3	52.9	54.4	75.3	63.7	64.5
April	60.5	57.0	55.6	64.0	55.9	55.9	77.1	65.3	66.0
May	61.7	58.7	57.3	65.3	57.5	57.5	78.0	66.9	67.5
June	63.7	60.1	58.7	67.0	57.0	58.8	79.4	66.5	68.9
July	65.4	60.5	60.5	68.7	59.8	60.6	80.8	68.9	70.6
August	67.3	60.9	61.3	70.7	60.4	61.6	83.3	70.1	71.7
September	66.3	60.2	58.3	69.4	59.1	58.4	82.5	65.6	69.2
October	65.3	60.8	58.3	68.2	58.8	58.3	81.8	67.2	68.7
November	65.0	58.1	57.4	67.9	57.9	57.6	81.7	65.3	68.3
December	63.0	56.1	51.9	65.6	54.2	53.0	79.7	63.6	64.3
1987 Average	**62.3**	**57.4**	**56.5**	**65.9**	**56.4**	**56.9**	**79.0**	**65.4**	**67.1**
1986 Average	**57.8**	**54.4**	**50.1**	**62.4**	**54.9**	**52.2**	**74.8**	**63.0**	**61.0**
1985 Average	**84.6**	**82.0**	**79.3**	**92.5**	**86.1**	**84.3**	**103.0**	**92.8**	**92.2**
1984 Average	**85.1**	**82.8**	**79.5**	**92.2**	**86.5**	**84.2**	**102.1**	**93.7**	**91.6**

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1988, published March 1989. (Table 11)

Supplier Product Prices for Resale

(¢ per gal., excluding taxes)

Year Month	Motor Gasoline	Aviation Gasoline	Kerosine-Type Jet Fuel	Propane (Consumer Grade)	Kerosine	No. 1 Distillate	No. 2 Distillate: No. 2 Fuel Oil	No. 2 Distillate: No. 2 Diesel Fuel	No. 2 Distillate: Average	No. 4 Fuel[a]	Residual Fuel Oil
1988											
January	53.7	86.0	53.0	26.7	59.3	57.7	52.1	51.2	51.7	47.6	32.3
February	53.9	84.2	52.1	26.4	57.2	54.5	48.9	49.1	49.0	45.8	32.0
March	53.8	84.4	50.2	25.4	54.3	54.7	47.6	49.1	48.3	41.8	28.4
April	58.4	84.6	50.3	25.0	54.2	59.4	50.6	51.5	51.1	39.2	30.0
May	59.8	85.2	51.1	24.6	53.3	58.0	50.1	51.3	50.7	39.0	31.3
June	59.2	85.3	50.7	24.1	49.9	54.0	46.6	47.8	47.3	41.6	30.9
July	62.3	86.3	47.5	21.7	48.3	51.0	43.3	43.4	43.4	39.5	29.0
August	61.3	86.9	47.8	21.9	48.9	51.6	44.3	45.0	44.7	40.8	30.7
September	58.0	86.0	47.0	22.4	49.8	51.8	43.2	44.8	44.1	42.1	28.7
October	57.3	84.0	45.2	22.0	49.4	50.6	41.9	42.0	42.0	31.4	25.0
November	58.1	83.5	46.6	22.0	52.9	53.5	45.1	44.6	44.8	38.5	27.8
December	54.9	84.0	50.0	22.8	57.8	56.4	49.9	48.0	49.1	41.7	29.4
1988 Average	**57.7**	**85.2**	**49.4**	**23.9**	**54.9**	**54.9**	**47.3**	**47.3**	**47.3**	**41.0**	**29.7**
1987											
January	53.3	82.9	49.0	25.0	59.2	57.0	50.6	49.5	50.2	46.1	37.4
February	55.1	84.9	49.7	24.4	56.6	54.8	49.3	49.6	49.4	44.9	37.1
March	56.3	83.6	49.1	23.6	54.2	53.9	49.0	48.7	48.9	43.0	35.8
April	57.8	84.1	50.2	24.4	55.6	54.9	49.4	49.7	49.6	44.1	37.1
May	59.5	85.2	51.6	24.0	55.6	57.2	51.5	52.1	51.8	45.2	39.6
June	60.8	86.9	52.7	23.6	55.4	58.6	52.6	53.1	52.8	45.6	42.0
July	62.5	86.6	55.3	24.4	57.0	60.2	54.9	55.1	55.0	47.5	43.4
August	63.6	86.9	57.0	25.6	59.0	62.3	55.1	57.1	56.2	51.2	42.9
September	60.6	86.8	55.9	26.1	58.6	61.8	53.3	56.0	54.7	48.4	39.1
October	60.5	86.9	58.0	26.8	62.7	65.9	56.7	58.1	57.4	49.2	38.8
November	59.9	87.2	58.6	27.1	63.5	66.5	57.0	57.9	57.4	49.6	37.5
December	55.3	86.3	55.6	26.0	60.7	60.6	54.2	53.8	54.1	46.6	33.9
1987 Average	**58.9**	**85.9**	**53.8**	**25.2**	**59.2**	**59.9**	**52.7**	**53.4**	**53.1**	**46.2**	**38.5**
1986 Average	**53.1**	**91.2**	**49.5**	**29.0**	**60.6**	**57.9**	**48.6**	**45.2**	**47.0**	**40.9**	**30.5**
1985 Average	**83.5**	**113.0**	**79.4**	**39.8**	**87.4**	**86.3**	**77.6**	**77.2**	**77.4**	**67.2**	**57.7**
1984 Average	**83.2**	**116.5**	**83.0**	**45.0**	**91.6**	**89.2**	**82.1**	**80.3**	**81.3**	**70.7**	**65.4**
1982 Average	**97.3**	**122.8**	**95.3**	**42.7**	**101.8**	**103.8**	**91.4**	**91.4**	**91.4**	**73.7**	**61.2**
1980 Average	**94.1**	**112.8**	**86.8**	**41.5**	**86.4**	**88.0**	**80.3**	**80.1**	**80.2**	**67.0**	**52.8**
1978 Average	**43.4**	**53.7**	**38.6**	**23.7**	**40.4**	**40.6**	**36.9**	**36.5**	**36.7**	**30.5**	**26.3**

(a) Includes No. 4 fuel oil and No. 4 diesel fuel.

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1988, published March 1989. (Table 4).

Supplier Product Prices for End-Users

(¢ per gal., excluding taxes)

Year Month	Motor Gasoline	Aviation Gasoline	Kerosine-Type Jet Fuel	Propane (Consumer Grade)	Kerosine	No. 1 Distillate	No. 2 Distillate: No. 2 Fuel Oil	No. 2 Distillate: No. 2 Diesel Fuel	No. 2 Distillate: Average	No. 4 Fuel[a]	Residual Fuel Oil
1988											
January	64.3	88.0	56.2	72.7	84.1	58.8	62.1	54.0	55.9	50.5	36.7
February	62.8	87.9	54.8	75.2	84.7	55.5	60.0	51.8	53.4	51.3	35.6
March	62.4	87.8	53.9	73.1	77.5	56.6	57.6	51.3	52.3	46.6	32.9
April	66.0	87.6	52.1	68.9	82.2	60.0	58.5	53.8	54.5	48.5	32.4
May	68.4	89.9	53.0	64.4	61.2	58.8	55.5	53.7	53.9	43.9	33.8
June	68.1	87.2	52.7	69.5	55.4	56.0	49.3	50.8	50.6	43.5	33.6
July	69.9	90.3	50.3	70.7	56.0	52.3	46.3	47.3	47.1	42.5	32.3
August	71.8	93.0	49.1	68.8	56.3	53.2	47.7	47.3	47.3	41.9	33.2
September	70.0	91.7	48.4	69.9	66.1	54.6	48.3	47.3	47.4	42.9	32.1
October	68.0	89.4	46.3	69.4	71.8	53.5	48.0	45.4	45.7	41.6	30.5
November	67.6	89.6	47.5	71.5	71.1	54.7	51.5	47.4	48.1	43.3	32.3
December	66.2	89.4	51.1	73.5	74.1	57.0	58.1	50.5	52.0	46.3	34.3
1988 Average	**67.2**	**89.4**	**51.2**	**71.3**	**73.8**	**56.4**	**54.3**	**50.0**	**50.7**	**46.0**	**33.4**
1987											
January	59.7	87.9	45.9	73.3	82.8	57.8	58.3	50.7	52.2	51.8	42.0
February	62.1	89.7	49.2	74.1	80.4	56.7	58.9	51.7	53.2	51.5	41.2
March	62.7	90.3	50.0	72.5	82.0	55.9	55.1	51.0	51.8	48.0	40.0
April	64.9	89.8	51.0	71.4	78.2	56.1	55.0	51.5	52.0	49.1	42.0
May	66.3	90.6	52.4	71.2	66.8	55.3	54.7	53.3	53.4	50.8	43.4
June	67.7	91.3	53.4	65.8	59.8	56.6	54.7	54.3	54.4	51.1	44.8
July	69.6	91.5	55.7	64.6	60.4	57.6	56.6	56.3	56.4	52.8	46.4
August	71.6	92.4	58.2	67.4	60.2	63.8	57.9	58.1	58.1	52.9	45.0
September	70.5	91.9	58.3	66.6	77.0	63.3	56.3	57.0	56.9	49.4	41.7
October	69.7	91.4	59.5	65.4	78.8	65.4	60.7	59.5	59.7	52.8	41.9
November	69.4	91.0	59.9	71.1	83.1	67.4	63.2	60.4	60.9	54.1	42.1
December	67.4	90.0	58.2	71.7	87.9	62.8	63.0	57.3	58.5	52.4	37.8
1987 Average	**66.9**	**90.7**	**54.3**	**70.1**	**77.0**	**60.4**	**58.1**	**55.1**	**55.6**	**51.3**	**42.3**
1986 Average	**62.4**	**101.1**	**52.9**	**74.5**	**79.0**	**62.0**	**56.0**	**47.8**	**49.1**	**48.9**	**34.3**
1985 Average	**91.2**	**120.1**	**79.6**	**71.7**	**103.0**	**88.0**	**84.9**	**78.9**	**79.9**	**77.3**	**61.0**
1984 Average	**90.7**	**123.4**	**84.2**	**73.7**	**103.6**	**92.7**	**91.6**	**82.3**	**83.7**	**79.6**	**68.7**
1982 Average	**106.0**	**131.2**	**96.3**	**59.2**	**108.9**	**102.3**	**90.5**	**94.2**	**92.5**	**75.0**	**67.6**
1980 Average	**103.5**	**108.4**	**86.8**	**48.2**	**90.2**	**83.4**	**78.8**	**81.8**	**80.4**	**68.2**	**60.7**
1978 Average	**48.4**	**51.6**	**38.7**	**33.5**	**42.1**	**40.9**	**40.0**	**37.7**	**39.6**	**31.1**	**29.8**

(a) Includes No. 4 fuel oil and No. 4 diesel fuel.

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1988, published March 1989. (Table 2).

Supplier Prices of No. 2 Distillate Fuel Oil

(¢ per gal., excluding taxes)

	Sales to End-Users						
	To Residential Consumers	To Commercial/ Institutional Consumers	To Industrial Consumers	Sales Through Company Outlets	To Other End-Users	Average	Sales for Resale
1988							
January	84.9	57.5	57.7	64.8	59.7	69.2	52.0
February	84.0	54.6	56.7	63.0	59.0	66.6	49.8
March	83.3	53.4	55.8	62.7	60.8	64.1	49.0
April	83.2	55.6	58.4	64.1	62.4	64.0	51.6
May	81.9	54.7	57.5	64.1	61.7	61.6	51.3
June	79.3	51.2	54.3	62.4	59.5	57.7	48.0
July	77.0	47.8	51.1	61.0	56.5	54.7	44.3
August	74.0	48.2	50.8	60.1	56.0	54.6	45.4
September	75.3	48.4	50.9	59.2	56.6	55.5	44.8
October	75.3	47.2	50.1	58.4	56.1	56.2	42.8
November	77.4	49.8	52.4	58.7	55.5	59.1	45.6
December	81.5	53.8	55.2	61.1	56.9	64.7	50.0
1988 Average	**81.4**	**51.9**	**54.1**	**61.6**	**58.4**	**61.2**	**48.1**
1987							
January	78.5	53.6	55.9	60.2	58.0	64.4	50.8
February	79.9	54.0	55.9	61.2	58.1	64.9	50.2
March	79.1	52.7	55.4	60.7	58.0	62.2	49.7
April	78.7	53.0	55.9	61.2	60.8	60.9	50.2
May	78.6	54.4	57.7	62.2	61.8	60.7	52.5
June	77.8	55.6	58.7	63.4	62.8	61.0	53.1
July	78.7	57.3	60.5	65.2	64.2	62.3	55.3
August	78.8	58.7	61.6	66.3	65.0	63.7	55.6
September	78.9	57.6	60.6	66.7	65.5	63.7	54.8
October	81.2	60.6	64.1	67.4	68.0	67.0	57.4
November	83.5	61.6	63.5	68.3	66.5	69.1	57.6
December	84.0	59.2	60.8	67.4	63.0	69.0	54.3
1987 Average	**80.3**	**56.6**	**59.7**	**64.4**	**63.1**	**64.3**	**53.5**
1986 Average	**83.5**	**51.4**	**53.7**	**59.8**	**56.9**	**61.4**	**48.0**
1985 Average	**105.3**	**82.1**	**83.4**	**88.6**	**85.3**	**89.0**	**78.1**
1984 Average	**109.1**	**85.7**	**87.0**	**92.0**	**89.2**	**92.6**	**81.9**

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1988 published March 1989. (Table 15).

Supplier Prices of Residual Fuel Oil

(¢ per gal., excluding taxes)

	Residual Fuel Oil Sulfur Content Less Than or Equal to 1%		Residual Fuel Oil Sulfur Content Greater Than 1%		Average	
	Sales to End-Users	Sales for Resale	Sales to End-Users	Sales for Resale	Sales to End-Users	Sales for Resale
1988						
January	41.8	36.6	31.8	27.8	36.7	32.3
February	40.2	35.3	31.5	27.3	35.6	32.0
March	36.9	32.3	29.1	25.0	32.9	28.4
April	35.8	33.7	30.2	27.5	32.4	30.0
May	36.8	34.1	32.1	29.5	33.8	31.3
June	35.3	32.9	32.3	28.8	33.6	30.9
July	35.7	32.0	30.0	26.5	32.3	29.0
August	36.0	32.7	30.7	28.3	33.2	30.7
September	34.7	31.4	30.1	26.7	32.1	28.7
October	34.4	29.2	26.7	22.0	30.5	25.0
November	36.1	31.9	27.2	23.9	32.3	27.8
December	38.8	35.6	28.6	25.9	34.3	29.4
1988 Average	**37.2**	**33.3**	**30.0**	**26.6**	**33.4**	**29.7**
1987						
January	45.5	39.3	37.9	35.7	42.0	37.4
February	43.8	40.0	38.3	34.4	41.2	37.1
March	43.4	38.8	37.2	33.4	40.0	35.8
April	43.9	39.7	39.9	35.5	42.0	37.1
May	44.9	41.1	41.7	38.6	43.4	39.6
June	45.8	43.7	43.5	40.6	44.8	42.0
July	48.3	44.9	44.1	41.9	46.4	43.4
August	46.0	44.6	44.0	41.4	45.0	42.9
September	44.0	41.4	39.7	36.8	41.7	39.1
October	44.5	41.3	39.5	36.3	41.9	38.8
November	45.0	41.3	38.7	34.6	42.1	37.5
December	41.4	39.2	33.0	28.2	37.8	33.9
1987 Average	**44.7**	**41.2**	**39.6**	**36.2**	**42.3**	**38.5**
1986 Average	**37.2**	**32.8**	**31.7**	**28.9**	**34.3**	**30.5**
1985 Average	**64.4**	**61.0**	**58.2**	**56.0**	**61.0**	**57.7**
1984 Average	**72.0**	**68.5**	**65.9**	**63.9**	**68.7**	**65.4**
1982 Average	**74.7**	**69.5**	**61.1**	**57.2**	**67.6**	**61.2**
1980 Average	**67.5**	**60.8**	**52.3**	**47.9**	**60.7**	**52.8**
1979 Average	**46.8**	**45.0**	**38.9**	**36.6**	**43.6**	**39.9**

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1988, published March 1989. (Table 17).

Residential No. 2 Prices for Selected States

(¢ per gal., excluding taxes)

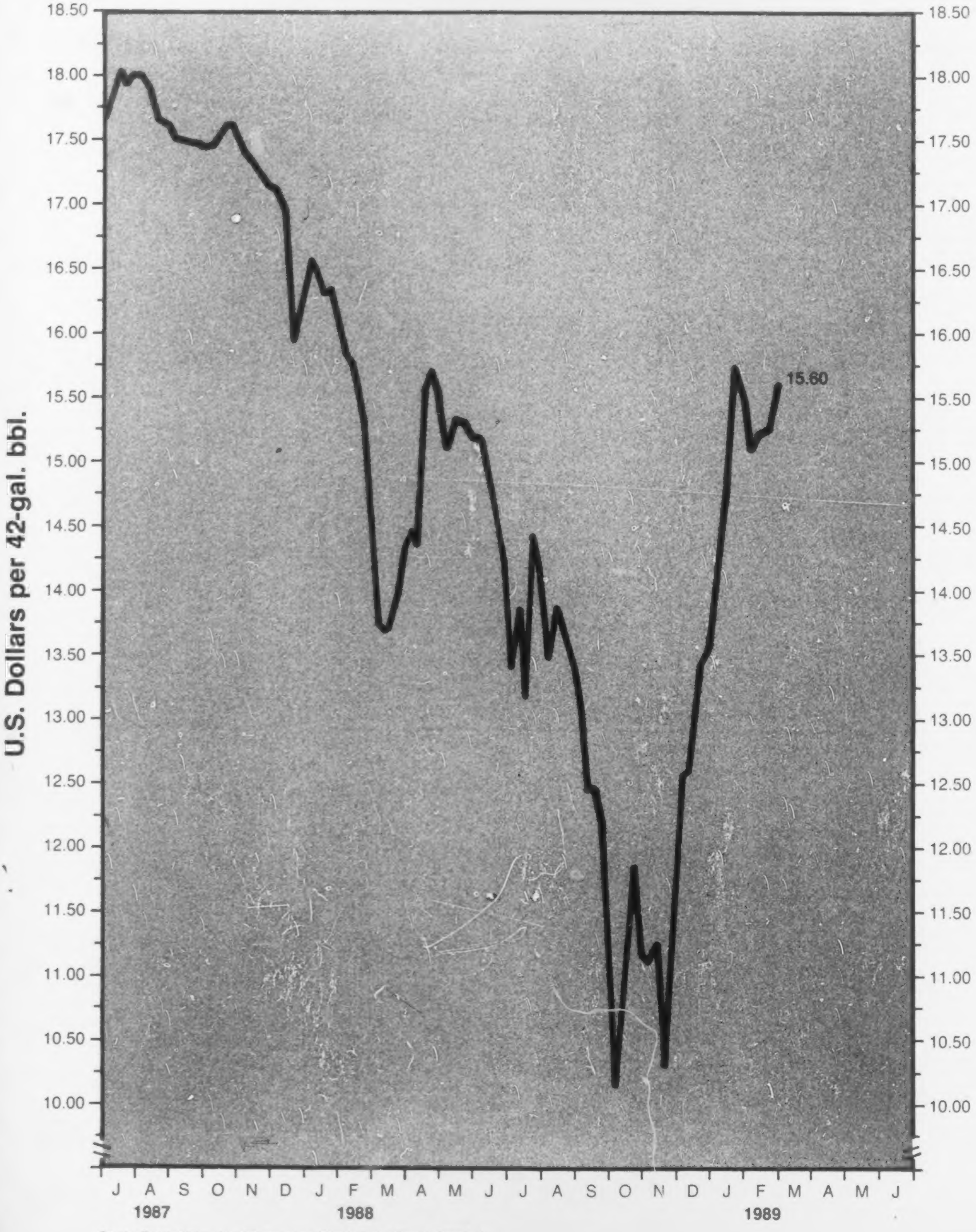
	Conn.	Maine	Mass.	N.H.	R.I.	Vt.	Del.	D.C.	Md.	N.J	N.Y.	Pa.	Va.
1988													
January	89.2	80.1	85.7	82.4	88.1	85.9	83.7	95.8	90.9	88.1	89.2	83.4	82.2
February	88.5	79.6	84.1	81.6	87.0	85.6	83.1	95.5	90.3	87.7	88.7	82.6	81.8
March	87.5	79.1	83.3	80.3	85.2	84.8	NA	92.8	88.2	86.7	87.5	81.6	82.6
April	88.1	78.6	83.1	79.0	85.6	85.3	82.8	90.8	89.1	85.7	86.7	81.1	82.8
May	86.6	77.5	82.4	78.3	85.1	84.9	82.3	91.9	87.9	85.4	85.0	79.7	81.7
June	86.6	75.4	77.7	79.3	81.6	83.4	80.9	90.4	86.8	82.5	83.6	75.3	79.1
July	83.6	73.3	76.2	76.5	76.3	81.4	73.4	84.8	85.0	80.9	82.1	71.6	77.4
August	81.9	75.7	74.1	73.7	79.7	81.5	73.5	84.6	84.2	78.6	78.3	64.5	77.1
September	80.8	71.8	79.2	74.0	79.7	77.5	71.1	84.7	76.1	75.7	81.1	68.9	76.0
October	79.9	69.0	77.8	71.9	76.7	76.4	70.4	83.1	78.0	77.8	81.2	70.1	75.0
November	80.5	72.0	78.0	73.1	80.1	77.2	73.5	84.5	81.4	78.8	83.3	72.4	77.2
December	84.4	79.1	82.8	78.0	84.2	80.8	79.2	88.6	85.1	84.0	87.9	77.4	79.7
1988 Average	**85.2**	**77.5**	**82.0**	**78.6**	**84.4**	**82.4**	**79.6**	**90.9**	**87.0**	**84.8**	**86.4**	**78.4**	**80.1**
1987													
January	**80.0**	**72.7**	**80.5**	**76.2**	**79.8**	**78.2**	**78.1**	**87.3**	**82.0**	**83.5**	**84.0**	**75.2**	**75.8**
February	**83.4**	**73.1**	**80.3**	**75.4**	**81.5**	**79.5**	**79.4**	**92.6**	**84.8**	**84.7**	**85.0**	**76.0**	**79.6**
March	**82.2**	**74.2**	**79.6**	**74.0**	**81.5**	**79.1**	**79.4**	**91.9**	**85.4**	**83.0**	**84.4**	**74.6**	**80.1**
April	**82.4**	**75.0**	**79.0**	**73.5**	**81.4**	**78.4**	**77.9**	**91.6**	**84.4**	**82.6**	**84.3**	**74.1**	**81.3**
May	**82.8**	**74.9**	**79.9**	**74.7**	**80.8**	**79.8**	**78.4**	**91.0**	**83.7**	**82.0**	**84.9**	**73.2**	**79.6**
June	**81.6**	**74.1**	**78.6**	**74.4**	**79.5**	**79.9**	**74.8**	**92.3**	**85.8**	**82.1**	**83.5**	**70.8**	**77.8**
July	**82.2**	**74.5**	**78.7**	**74.3**	**80.5**	**80.8**	**74.7**	**90.2**	**87.2**	**82.4**	**82.7**	**72.6**	**78.5**
August	**82.0**	**74.8**	**77.2**	**75.7**	**79.4**	**80.3**	**74.8**	**92.4**	**87.1**	**81.8**	**83.4**	**73.9**	**77.9**
September	**82.5**	**74.7**	**78.9**	**76.0**	**80.5**	**81.1**	**76.2**	**91.4**	**87.3**	**82.5**	**82.8**	**74.8**	**78.8**
October	**84.3**	**73.4**	**81.0**	**78.0**	**83.0**	**83.5**	**78.8**	**92.1**	**88.4**	**84.2**	**85.3**	**77.7**	**81.0**
November	**87.3**	**75.2**	**83.1**	**79.3**	**86.2**	**84.3**	**82.4**	**93.5**	**90.4**	**86.3**	**87.4**	**80.8**	**82.9**
December	**87.8**	**79.1**	**83.7**	**81.9**	**87.1**	**84.9**	**82.5**	**95.3**	**90.6**	**87.2**	**88.0**	**81.7**	**82.5**
1987 Average	**83.4**	**74.7**	**80.6**	**76.5**	**82.5**	**81.1**	**79.3**	**91.8**	**86.6**	**84.3**	**85.2**	**78.9**	**79.5**
1986 Average	89.0	74.4	82.1	75.9	82.8	86.6	85.0	93.1	91.4	90.2	91.1	81.4	86.6
1985 Average	108.0	99.7	107.0	102.4	106.7	107.7	104.6	114.3	108.8	105.9	111.3	102.3	106.3
1984 Average	112.1	103.9	111.6	108.4	111.4	111.9	109.6	118.7	113.5	111.0	115.5	107.9	110.5
1983 Average	109.1	102.8	109.1	104.1	110.5	112.9	106.0	117.0	110.3	107.9	112.1	105.8	108.7
1982 Average	118.3	115.5	117.6	117.4	120.1	120.1	111.3	124.5	117.1	117.4	120.5	113.7	117.7
1981 Average	121.7	120.4	121.3	123.7	123.8	125.4	117.3	127.4	121.4	121.5	123.2	118.1	120.5
1980 Average	98.3	96.3	97.8	100.4	101.1	101.5	95.4	102.6	97.9	97.9	98.2	96.4	98.5

	W.Va.	Ill.	Ind.	Mich.	Minn.	Ohio	Wis.	Idaho	Ark.	Ore.	Wash.	U.S. Avg.
1988												
January	78.7	85.4	79.9	81.6	76.9	76.7	77.2	74.5	88.4	75.9	82.8	**84.9**
February	76.0	86.1	76.9	80.8	75.7	76.5	76.4	72.3	87.4	75.0	82.1	**84.0**
March	75.5	86.1	76.7	78.4	78.4	76.5	76.1	70.8	89.1	74.3	81.9	**83.0**
April	75.5	87.4	79.6	78.6	78.6	77.3	78.1	73.6	88.8	74.4	82.5	**83.2**
May	73.6	85.7	77.0	77.0	74.5	74.7	76.6	72.7	89.4	74.8	82.4	**81.9**
June	71.8	82.9	78.9	73.7	73.6	72.4	74.3	70.5	87.8	74.0	77.6	**79.3**
July	70.5	83.8	73.8	73.4	75.8	70.0	72.9	67.6	85.4	66.6	72.7	**77.0**
August	67.9	80.5	73.7	74.0	72.3	69.2	71.4	64.5	85.4	64.4	69.8	**74.0**
September	68.9	67.6	69.5	74.6	72.3	71.4	69.4	67.5	88.2	64.7	73.7	**75.3**
October	71.4	68.6	71.0	76.7	70.7	71.1	67.8	66.8	86.6	62.5	70.4	**75.3**
November	74.1	70.6	72.1	75.3	72.4	73.5	69.9	66.6	85.7	62.3	72.7	**77.4**
December	74.4	73.0	75.1	76.6	72.4	75.6	71.7	66.3	86.0	63.4	75.0	**81.5**
1988 Average	**74.3**	**77.5**	**75.4**	**77.6**	**74.3**	**74.7**	**74.0**	**68.8**	**87.3**	**70.7**	**78.4**	**81.4**
1987												
January	**75.6**	**76.9**	**73.0**	**76.6**	**71.8**	**71.1**	**72.6**	**63.1**	**86.4**	**68.1**	**73.0**	**78.5**
February	**77.6**	**78.1**	**72.3**	**76.7**	**71.7**	**73.3**	**73.9**	**65.1**	**86.9**	**71.4**	**75.9**	**79.9**
March	**75.2**	**78.3**	**71.2**	**76.1**	**71.6**	**71.9**	**74.0**	**65.7**	**83.3**	**70.9**	**76.1**	**79.1**
April	**73.2**	**78.3**	**73.1**	**74.7**	**71.8**	**71.1**	**74.1**	**65.4**	**76.5**	**70.3**	**65.9**	**78.7**
May	**74.8**	**80.1**	**75.8**	**75.1**	**72.4**	**70.9**	**71.6**	**65.2**	**78.2**	**69.5**	**74.0**	**78.6**
June	**74.2**	**80.5**	**75.9**	**76.1**	**72.7**	**75.0**	**74.3**	**70.0**	**84.6**	**67.6**	**74.2**	**77.8**
July	**74.2**	**79.9**	**76.7**	**77.1**	**75.5**	**76.5**	**73.5**	**70.5**	**87.5**	**NA**	**77.4**	**78.7**
August	**75.6**	**83.7**	**77.1**	**77.4**	**75.9**	**73.4**	**74.5**	**74.9**	**88.7**	**NA**	**79.3**	**78.8**
September	**74.2**	**79.4**	**77.1**	**77.4**	**74.4**	**74.6**	**74.3**	**77.3**	**89.5**	**77.1**	**81.2**	**78.9**
October	**74.9**	**87.3**	**79.4**	**78.1**	**78.9**	**76.9**	**77.5**	**76.3**	**92.6**	**75.1**	**82.8**	**81.2**
November	**78.3**	**88.2**	**80.8**	**80.9**	**79.7**	**79.1**	**79.3**	**77.3**	**92.3**	**74.7**	**84.3**	**83.5**
December	**80.5**	**85.2**	**79.6**	**80.2**	**77.0**	**78.7**	**78.4**	**78.8**	**90.6**	**75.8**	**84.8**	**84.0**
1987 Average	**76.4**	**79.8**	**75.4**	**77.5**	**74.6**	**74.7**	**75.1**	**68.8**	**86.5**	**72.5**	**79.5**	**80.1**
1986 Average	74.6	NA	74.8	81.0	79.2	77.7	75.6	73.8	94.9	70.4	77.5	**83.6**
1985 Average	98.0	97.5	99.1	102.1	101.9	99.7	98.3	97.2	108.3	97.1	101.1	**105.3**
1984 Average	102.1	100.1	103.1	105.0	104.1	102.1	101.0	98.5	106.9	99.3	102.6	**109.1**
1983 Average	101.0	100.4	100.7	106.4	103.1	101.3	101.2	101.8	108.8	103.6	109.0	**107.8**
1982 Average	109.3	110.9	114.3	113.9	115.1	110.2	107.8	110.4	117.4	111.6	117.6	**116.0**
1981 Average	115.0	114.9	118.5	118.3	118.4	113.2	109.1	110.4	118.0	111.4	116.5	**119.4**
1980 Average	92.2	95.8	99.6	97.8	99.9	91.9	91.5	91.6	97.8	97.3	100.8	**97.4**

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1988, published March 1989. (Table 16).

World Crude Oil Price Trends

(Average price (FOB), internationally traded only, weighted by estimated volume)



Source: Energy Information Administration, Weekly Status Report, Figure 10

Spot Market Product Prices

($ per bbl.)

		Motor Gasoline		Gasoil/Heating Oil		Residual Fuel Oil	
		Rotterdam Leaded Premium (98-Octane)	New York UnleadedRegular (87-Octane)	Rotterdam (0.3% Sulfur)	New York (0.2% Sulfur)	Rotterdam (1% Sulfur)	New York (1% Sulfur)
1989							
Jan.	6	20.16	20.31	21.25	23.04	14.94	16.65
	13	19.93	21.11	21.98	23.04	14.79	16.35
	20	20.40	22.16	21.05	23.21	15.32	16.15
	27	20.40	21.21	20.17	21.78	15.17	15.50
Feb.	3	20.81	21.00	19.64	22.47	14.56	15.00
	10	21.51	20.10	18.97	21.25	14.56	14.50
	17	21.16	19.95	18.97	21.36	14.49	14.00
	24	21.45	20.48	19.17	21.74	14.04	14.75
1988							
Jan.	1	18.93	18.42	20.71	21.63	13.06	15.00
	8	19.40	19.22	21.44	23.10	14.56	16.40
	15	18.58	18.90	19.90	22.26	14.48	16.90
	22	18.34	18.84	19.77	20.79	14.11	15.25
	29	17.81	18.90	18.69	20.58	13.51	14.50
Feb.	5	18.87	19.32	18.96	21.13	12.91	14.75
	12	19.10	19.26	18.76	20.69	12.91	14.75
	19	19.46	19.01	18.36	19.43	12.91	14.50
	26	20.22	18.90	18.02	19.11	12.61	14.50
Mar.	4	19.87	18.38	17.62	19.26	12.01	13.75
	11	19.05	18.48	17.76	19.32	11.56	12.75
	18	19.10	18.94	17.42	19.53	11.26	12.75
	25	19.46	19.64	18.76	20.85	11.86	13.00
	31	19.75	20.31	18.96	20.58	12.23	13.25
Apr.	8	19.98	20.37	18.90	20.06	12.53	13.00
	15	20.75	21.95	20.44	21.74	13.36	13.75
	22	21.86	21.78	20.98	22.57	13.96	14.05
	29	22.10	21.53	21.11	22.68	14.41	14.60
May	6	21.57	21.31	19.30	21.25	12.91	14.50
	13	22.57	22.15	19.24	21.52	13.29	14.15
	20	22.80	22.26	19.44	21.21	12.84	14.00
	27	22.04	22.05	18.83	20.79	12.24	14.00
June	3	22.80	22.20	19.10	20.52	12.91	14.25
	10	22.04	21.42	18.70	19.11	12.91	14.00
	17	22.22	21.84	18.03	18.63	12.16	13.75
	24	21.86	22.05	18.16	18.48	12.31	13.75
July	1	21.40	22.37	17.36	17.22	12.16	13.50
	8	21.10	24.00	17.56	17.85	12.01	14.00
	15	21.22	23.25	16.96	16.97	12.16	13.95
	22	21.28	23.46	18.16	18.98	13.06	14.50
	29	21.40	21.74	18.50	18.59	13.21	14.60
Aug.	5	20.87	20.06	17.43	17.75	12.31	14.25
	12	20.16	19.74	17.83	18.48	12.61	14.00
	19	20.16	20.41	17.69	18.33	12.76	14.25
	26	20.98	19.74	17.56	17.64	12.76	14.00
Sept.	2	20.63	19.85	17.16	18.06	12.46	13.75
	9	19.87	18.90	16.49	17.33	11.41	13.00
	16	19.87	19.95	16.76	17.68	11.56	13.00
	23	19.99	19.99	16.29	17.12	11.41	12.85
	30	19.75	19.99	15.82	16.38	11.04	12.65
Oct.	7	18.46	18.80	14.34	15.54	9.61	11.75
	14	18.58	20.58	15.28	17.22	10.06	12.50
	21	19.64	22.58	16.29	18.17	11.41	13.40
	28	21.34	22.58	15.88	18.17	11.49	12.75
Nov.	4	21.22	22.05	16.82	18.63	11.79	14.00
	11	21.16	23.84	16.82	18.48	12.39	14.00
	18	21.69	22.16	16.55	18.10	12.91	14.00
	25	21.28	20.90	17.43	19.11	12.39	14.00
Dec.	2	21.63	21.42	19.30	20.79	13.89	15.10
	9	20.57	19.15	19.64	20.27	13.29	14.85
	16	20.40	19.11	20.24	21.46	13.74	15.00
	23	20.16	19.95	20.44	22.09	14.11	15.80
	30	20.52	20.06	20.71	22.20	14.49	16.50

Source: Energy Information Administration, Weekly Petroleum Status Reports, Table 13.

International Prices for Gasoline and Fuel Oil

(U.S. $ per gal. for gasoline, pump retails, all taxes included. U.S. $ per gal. for distillate and kerosine but $ per bbl. for residual oil; all taxes are included except for U.S. fuel oils.)

	1/1/88					1/1/87				
	Automotive Fuels		Residential			Automotive Fuels		Residential		
Country	Leaded Premium Gasoline	Diesel Fuel	Distillate	Kerosine	Industrial Residual	Leaded Premium Gasoline	Diesel Fuel	Distillate	Kerosine	Industrial Residual
WESTERN HEMISPHERE										
Argentina	$1.24	$.56	$NA	$.53	$12.68	$1.83	$0.68	$NA	$0.79	$18.11
Bolivia	1.18	.91	NA	.76	NA	1.14	1.18	NA	.85	NA
Brazil	2.18	.94	NA	.95	16.67	2.94	1.92	NA	1.07	NA
Canada	1.52	1.43	.94	1.43	15.46	1.30*	1.26	$0.76	1.34	13.19
Chile	NA	NA	NA	NA	NA	1.23	.95	NA	.80	21.71
Columbia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dominican Republic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ecuador	NA	NA	NA	NA	NA	.44	.27	NA	.10	20.65
El Salvador	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jamaica	5.52	1.64	NA	.66	15.93	1.65	1.20	.73	.68	22.76
Mexico	.99	.77	.23	.52	7.34	.71	.61	.18	.30	15.51
Panama	1.98	1.19	NA	1.10	15.37	NA	NA	NA	NA	NA
Paraguay	3.50	1.80	NA	2.18	47.70	5.03	2.60	NA	3.15	69.44
Peru	1.02	.38	NA	.11	13.62	1.50	.92	NA	.24	33.56
United States	.91	.96	.62	.84	15.92	.82*	.87	.73**	.83**	12.18**
Uruguay	2.58	1.49	1.16	1.37	27.54	2.29	1.31	1.03	1.21	24.33
Venezuela	.39	.09	NA	.13	2.19	.75	.18	NA	.32	5.30
WESTERN EUROPE										
Austria	2.86	2.12	1.27	NA	NA	2.64	1.98	1.25	NA	NA
Belgium	2.57	1.39	.74	.58	13.72	2.37	1.30	.72	.62	16.26
Denmark	3.72	1.05	2.27	1.78	18.97	3.58	2.29	2.22	1.82	20.00
Finland	3.11	1.89	.89	NA	22.43	2.64	1.83	.82	1.05	21.42
France	3.08	1.93	1.20	NA	15.28	2.95	1.91	1.20	NA	20.21
Germany, West	2.18	1.75	.71	NA	16.10	2.09	1.67	.74	NA	18.12
Greece	2.15	1.05	1.05	NA	26.74	2.16	1.05	1.05	NA	28.52
Ireland	3.39	2.42	1.23	NA	22.92	3.24	2.28	1.18	NA	26.54
Italy	4.09	1.77	1.86	NA	12.99	3.71	1.55	1.63	1.56	15.60
Luxembourg	2.04	1.28	.75	NA	16.73	1.94	1.23	.78	.68	17.60
Netherlands	3.01	1.36	1.09	NA	19.91	2.84	1.37	1.14	NA	20.93
Norway	2.89	1.14	1.05	1.12	NA	2.72	1.09	1.00	1.08	24.16
Portugal	3.25	1.95	2.02	1.89	24.07	2.98	1.69	1.75	1.73	19.53
Spain	2.58	1.71	1.12	1.70	18.74	2.28	1.51	.99	1.70	16.57
Sweden	2.68	1.64	1.11	NA	36.68	2.39	1.47	1.10	NA	39.88
Switzerland	2.53	2.61	.68	NA	18.02	2.38	2.46	.71	NA	20.91
Turkey	1.36	1.01	.72	1.04	26.46	NA	NA	NA	NA	NA
United Kingdom	2.43	1.95	.78	NA	17.48	2.24	1.77	.82	NA	21.01
Yugoslavia	2.04	1.66	NA	.76	18.81	2.03	1.62	.90	.81	18.07
MIDDLE EAST										
Israel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Saudi Arabia	.54	.12	NA	.21	47.67	.35	.12	NA	.20	NA
AFRICA										
Ethiopia	2.35	1.44	1.31	1.19	41.47	2.40	1.44	1.21	1.20	41.48
Ghana	1.11	1.06	NA	.80	22.95	NA	NA	NA	NA	NA
Kenya	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Moroco	2.94	1.68	NA	1.51	34.44	NA	NA	NA	NA	NA
South Africa	NA	NA	NA	NA	NA	1.50	1.47	.96	.71	29.75
Tunisia	2.22	NA	.85	.71	16.96	2.08	NA	1.15	.65	16.42

Continued.....

(Continued......)

International Prices for Gasoline and Fuel Oil

(U.S. $ per gal. for gasoline, pump retails, all taxes included. U.S. $ per gal. for distillate and kerosine but $ per bbl. for residual oil; all taxes are included except for U.S. fuel oils.)

	1/1/88					1/1/87				
	Automotive Fuels		Residential			Automctive Fuels		Residential		
	Leaded					Leaded				
ASIA PACIFIC										
Australia	1.51	1.31	NA	NA	NA	1.41	1.25	NA	NA	NA
Burma	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indonesia	1.00	.45	.51	.37	NA	NA	NA	NA	NA	NA
India	2.15	1.01	NA	.65	33.21	2.17	1.01	NA	.65	33.51
Japan	3.49	2.08	1.12	1.13	30.57	2.89	1.80	1.10	1.08	22.00
New Zealand	2.31	1.69	1.75	NA	38.06	1.69	1.27	1.27	NA	27.73
Pakistan	1.67	.83	NA	.65	11.42	1.67	.84	NA	.66	13.66
Philippines	1.39	.97	.52	.98	NA	1.28	.88	NA	.89	1[illegible].46
Singapore	1.75	.78	NA	.64	10.40	1.66	.67	NA	.55	15.55
Sri Lanka	1.66	1.00	NA	.81	19.19	1.79	1.07	NA	.87	20.71
Thailand	1.34	.95	.47	.92	18.53	1.30	.92	.47	.89	15.80

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*Unleaded regular grade gasoline in Canada and U.S., unleaded premium in all other countries; ** Excludes taxes, all other countries include taxes in distillate, kerosine and residual prices; NA = Not available or not reported.

Source: International Energy Annual 1986, Energy Information Administration; gasoline and fuel oil prices are for the capital cities of each country except those of the U.S., which are the national average for the periods quoted.

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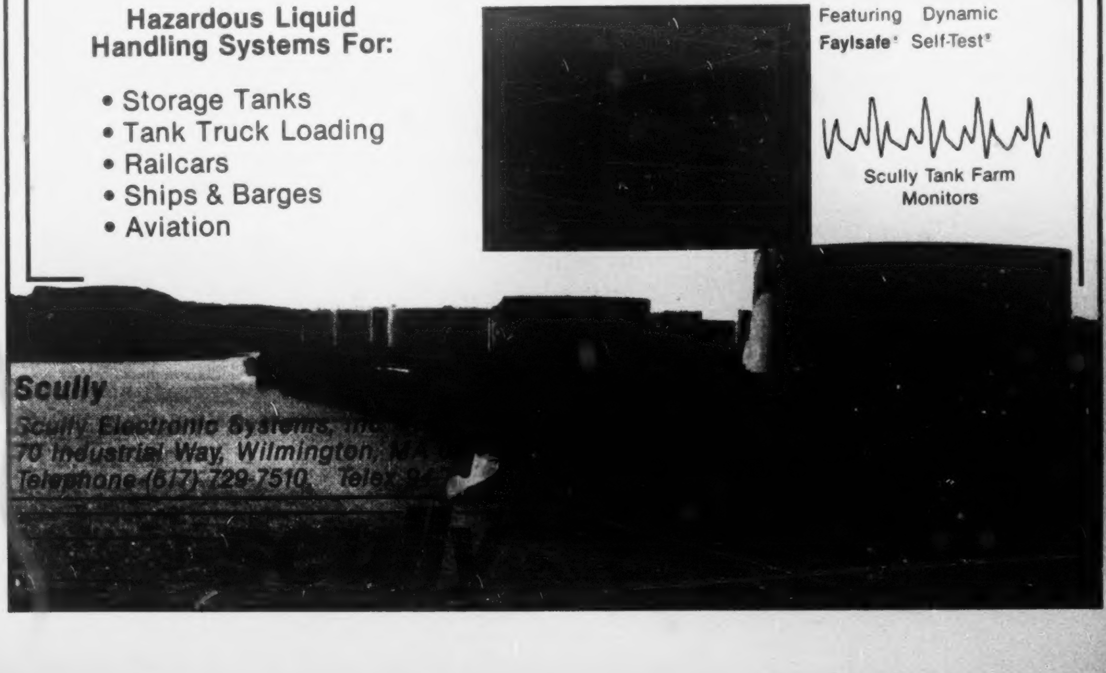

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How Many Gasoline Stations Are There? Does Anyone Really Know?

For an industry that can, at the drop of a hat, come up with an endless array of disa and data about itself and its operations—how many millions of barrels of crude oil it produces, how many it refines, how many billions of gallons of gasoline it sells and how many zillions of dollars it generates, ad infinitum, ad nauseum—there's one elusive statistic that has yet to be captured and supported in documentable fashion.

Neither the mega-billion dollar oil industry, nor the federal government—nor anyone else for that matter—can provide accurate information on the number of retail gasoline outlets there are in this country. Incredible as it may seem, this is an industry so big and so powerful that it dominates the national economy yet it cannot verify the number of places where its prime product, gasoline, is sold daily.

Some oil companies can come up with tallies of their own branded distributors; some states—but not more than half of them at the most—can provide licensing registration data; some associations can offer "guesstimates." But nowhere is there a population count which is accurate and comparable, i.e., supportable totals of the service stations, the convenience stores with gasoline, the car washes, the dealerships, garages and other repair centers—all of the places, in substance, which regularly sell gasoline to the public.

A fast once-over of the gasoline station population from Maine to Florida recently confirms what many marketing people have long suspected—there seems to be a lot more places peddling gasoline than most industry reports generally account for.

As a matter of fact, if the East Coast statistics collected by NPN are a real reflection of the nation as a whole, there has to be at least twice as many gasoline stations in business nationally than current data and educated guesses indicate.

300,000 Outlets?

In other words, a more reasonable estimate of the U.S. total—based on the NPN East Coast survey made in late March and early April—would have to be at least 300,000 gasoline outlets, give or take. These are places that anybody can buy gasoline—be they service stations, convenience stores, car washes, garages and what-have-you.

By way of comparison, U.S. Census Bureau numbers plus modifications to bring them up to date, plus "guesstimates" for the convenience store world, would have you believe that this total was only 150,000 at the end of 1988. This is what the industry is currently using as its best ballpark estimate.

The hard truth, however, is that nobody but nobody really knows at this time exactly how many gasoline outlets there are in the U.S. One industry executive facetiously remarked "that's a number that even the Good Lord Himself might have trouble coming up with."

It may or may not be somewhat of a surprise to some industry people to learn that many states, if not most of them, simply do not keep records or have files that would show solid data on gasoline station outlets in their provinces. This applies to the limited world of "true service stations" as defined by the U.S. Department of Commerce and the C-store field where an estimated 50% of 80,000 places sell gasoline as a sideline.

A few states, like North Carolina, do excellent jobs in their record keeping. North Carolina, for example, keeps and updates annually not only its totals for gasoline outlets but also its specific numbers on gasoline, diesel and kerosine dispensers. The North Carolina statistics are on a county-by-county basis as well.

Almost parenthetically, it should be noted that if one state can do this, it seems incredible then that the format can't be duplicated elsewhere in an industry which counts in the hundreds of billions at one end of the spectrum uses fractions of a cent and tenths of a gallon at the other end.

In a fresh endeavor to get a better grip on the gasoline station population on the East Coast, NPN recently contacted all of the national organizations which conceivably might have such data: American Petroleum Institute, Petroleum Marketers Assn. of America, American Automobile Assn., National Highway Users Foundation, Service Station Dealers of America, to name a few. Government agencies, including the Environmental Protection Agency which can estimate how many storage tanks there are above and below ground but not how many gasoline stations there might be as well, also were queried. Most commented, in effect, "If you can find anybody who has such information, let us know; we'd like to have it too."

Numbers the Hard Way

To push the issue as far as possible, NPN contacted authorities in 16 Atlantic Seaboard states, posing the same question to industry spokesmen and associations, then to the state governments—making, in the process, as many calls as were necessary to find someone somewhere who could come up with an official figure or a reasonable guess in each state.

The best number, as indicated above, came from North Carolina, which had detailed statistics on everything. Delaware, Florida, Georgia, Maryland and South Carolina also had official numbers that were based on registrations or other required information related to weights and measures, consumer services, divorcement and below cost marketplace competition and so on.

The New England and Mid-Atlantic States generally had nothing official available and relied mostly on "best estimates" by state departments or state retailer associations. A surprising aspect of this was that while the state retailer associations could supply numbers quickly for their own areas the national organization had no compilations of any kind.

Here's the East Coast rundown com-

Comparable U.S. Census Bureau Data (a)

	1982	1977	1972	% Chng. '82 v '77	% Chng. '82 v '72
No. of stations (b)	116,154	147,618	183,365	-21.3%	-19.5%
Total sales ($000,000)	$94,832	$53,749	$31,440	76.4	71.0
Average per station	$816,433	$364,108	$171,461	124.2	112.4
No. of employees	604,286	672,673	747,668	-10.2	-10.0

(a) Censuses are made every five years. Normally, the count includes stations with payrolls and those without payrolls, i.e., the 'moms and pops' and small family operations. In 1982, the Census Bureau overlooked the stations without payrolls, however, so the comparisons in this table are for stations with payrolls, which represented about 81% of the population in 1972 and 83% of the population in 1977. A new Census was made in 1987, but the details are not expected to be released until late 1988 or early 1989. (b) Stations are those which, by Census Bureau definition, generate 50% or more of their sales dollars from gasoline.

Source: U.S. Department of Commerce, Census of Retail Trade for 1982, 1977 and 1972.

State	Number of Outlets	Source of Information
New England		
Maine	1,000	Retailer Assn.
New Hampshire	1,050	Retailer Assn.
Vermont	856	Retailer Assn.
Massachusetts	2,500	Retailer Assn.
Connecticut	2,000	Industry Assn.
Rhode Island	602	State Estimate
Mid-Atlantic		
New York	7,100	Retailer Assn.
New Jersey	4,000	Retailer Assn.
Pennsylvania	6,000	Retailer Assn.
Maryland	2,450	State Data
Dist. of Col.	134	Retailer Assn.
South Atlantic		
Delaware	523	State Data
N. Carolina	11,759	State Data
S. Carolina	5,300	State Data
Virginia	8,000	State Estimate
Georgia	8,525	State Data
Florida	10,531	State Data
Total	72,330	

piled by NPN (table at left):

The U.S. Census Bureau surveys the retail trades every five years. Its last nose count was in 1987 and the statistics are only now becoming available (See related item in this section). But the problem here is that the Census Bureau counts as service stations only those that generate more than 50% of their revenues from gasoline and oil products. The count is even stickier now because the Census Bureau, more through accident than by design, now counts only those stations that have payrolls. About 10% to 15% of the smaller stations are in a limbo of their own as a result. Also not counted are the thousands of convenience stores with gasoline, garages, car washes, dealerships, et al, etc. Many people do not realize it but even the Census Bureau uses estimates in the fringe areas rather than actual counts. This affects about 15% to 20% of the service station world.

Government and industry lost one of its measuring sticks at the end of 1988 when a decision was made to abandon publication of the annual "Franchising in the Economy" report to save money. Although it was focused primarily on franchised businesses, it nevertheless provided some interesting percentage projections on service stations and their sales dollars.

Gasoline station numbers are becoming increasingly important in the light of environmental controls, storage tanks, skyrocketing insurance policies, Stage 2 equipment and so on. Some industry observers have long been wondering whether the time isn't ripe now for a cooperative industry and government project that would produce realistic state and national numbers for a change.

The 1987 Retail Census: The First Returns Show Up At Last

In 1987, the U.S. Census Bureau fulfilled a mandate from Congress—it took its five-year nose count of the retail trade businesses. The first returns are now being tallied and published as rapidly as the agency can handle them. The first state report (Arizona) was issued in March; Colorado followed in April and the balance are expected to be released by the end of the year, in whatever order they can get through the printing machinery.

There are some things to bear in mind in evaluating the 1987 census reports:

1. These are "true" service stations with 50% or more of their sales dollars coming from gasoline and oil products. Not included in this count are C-stores with gasoline and other vendors where gasoline is a secondary source of revenue.

2. This count, as did the 1977 count, takes into consideration only those stations that have payrolls. Automatically excluded are the privately owned and operated "family" stations, nominally known as "Moms and Pops." Census says it hopes to have a special report on the small stations later this year or perhaps in 1990 when all the other work is done.

3. The 1987 census took a step in a new direction which could play an important role in this and future censuses. In bygone years, the service station count was effectively as of the end of the year. The 1987 census provides two sets of figures: one, the traditional yearend report; and two, the greatest number of outlets at any given time in that calendar year (in other words, the peak number). Census says the second number will be the standard number in the future. The yearend number will be dropped in the 1992 census. This will make comparisons between 1992 and most earlier figures impossible.

Here are the Census Bureau data for the early returnees:

Service Stations in Business

Anytime during the year				At the end of the year		
1987	1982	% Change		1987	1982	% Change
214	188	13.8%	Alaska	184	176	4.5%
1,151	1,204	(4.4)	Arizona	1,241	1,320	(6.0)
1,568	1,787	(12.3)	Colorado	1,455	1,570	(7.3)
558	552	1.0	Idaho	NA	NA	NA
548	569	(3.7)	Montana	493	522	(5.6)
441	519	(15.0)	Nevada	387	476	(18.7)
696	854	(18.5)	New Mexico	644	770	(16.4)
849	890	(4.6)	Utah	780	842	(7.4)
415	459	(9.6)	Wyoming	384	430	(10.7)

Other Significant Data

	Sales			Annual Payroll			Employees	
1987	1982	% Chng	1987	1982	% Chng	1987	1982	% Chng
(Add $000,000)			(Add $000)			(Number)		
			Alaska					
$ 179	$ 206	(12.8)%	$ 16,510	$15,684	5.3%	1,197	1,219	(2.0)%
			Arizona					
1,584	1,306	21.3	100,687	62,277	61.7	10,430	7,544	38.3
			Colorado					
1,533	1,430	7.2	96,955	70,850	36.8	10,145	9,404	7.9
			Idaho					
444	353	25.8	26,059	16,753	55.5	3,202	2,408	33.0
			Montana					
403	388	4.9	25,769	21,201	21.5	2,985	2,864	4.2
			Nevada					
523	564	(7.4)	41,050	31,843	28.9	4,462	3,592	24.2
			New Mexico					
640	614	4.3	39,822	31,647	25.8	4,510	4,159	8.4
			Utah					
710	657	8.0	41,376	31,218	32.5	5,450	4,392	24.1
			Wyoming					
305	399	(23.5)	22,064	22,842	(3.4)	2,363	2,475	(4.5)

Gasoline Shares by Key Categories—1988

A new study of retail gasoline market shares was introduced in 1985 by MPSI Americas Inc., a Tulsa, Okla. firm specializing in international computer software and information services as well as market research and planning. Now, MPSI has released its updated study covering the year 1988.

Included with the data on regional and national market shares for 1988 (see table below) are the comparable data for 1987. This comparison offers indications of the trends within the various marketing segments.

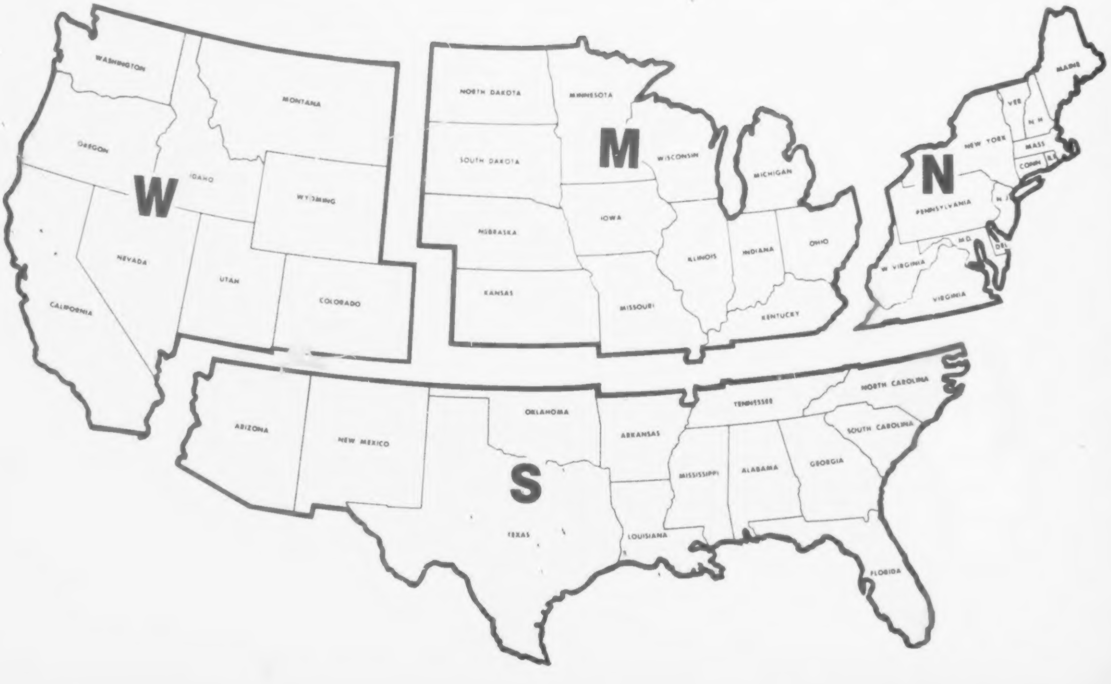
The study breaks out, on both a national and regional basis, market shares and percentage of outlets for conventional service stations, volume pumpers, convenience stores that sell gasoline, plus a catch-all category of "others" including car washes, garages and other facilities.

This study involves primarily the metropolitan areas of the U.S. where most gasoline is marketed. No attempt was made to count rural vendors or highway units, which, while important to the industry, do not add significantly to overall consumption.

Regional and National Market Shares

	Service Stations		Pumpers		Convenience Food Stores		Others		Total	
	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Northeastern Region										
• % of Outlets	64.9	58.7	19.7	24.4	5.0	5.2	10.4	11.7	100.0	100.0
• % of Volume	58.0	52.4	36.6	00.0	2.8	2.9	2.6	3.0	100.0	100.0
• Avg. Monthly Volume (Gallons)	58.378	58.914	120.998	124.883	36.762	37.807	16.048	16.766	65.252	63.375
Midwestern Region										
• % of Outlets	38.4	39.0	42.5	39.9	7.2	8.6	11.9	12.5	100.0	100.0
• % of Volume	31.3	32.6	61.6	58.1	4.1	6.0	3.0	3.3	100.0	100.0
• Avg. Monthly Volume (Gallons)	58.959	59.152	104.937	105.714	41.472	46.202	18.154	19.059	72,369	72.751
Sunbelt Region										
• % of Outlets	25.3	27.2	32.2	30.0	31.3	30.2	11.2	12.6	100.0	100.0
• % of Volume	24.3	26.8	56.5	54.0	15.5	15.2	3.7	4.0	100.0	100.0
• Avg. Monthly Volume (Gallons)	55.853	57,045	101,761	000.000	28,734	28,995	18,902	18,646	58,029	57,916
Western Region										
• % of Outlets	48.3	52.9	32.2	31.9	10.6	7.1	8.9	8.9	100.0	100.0
• % of Volume	46.3	45.1	46.4	48.3	4.9	4.3	2.4	2.3	100.0	100.0
• Avg. Monthly Volume (Gallons)	60.868	56,100	113.735	114.870	36.769	36.850	21.560	20,907	79.108	69,515
Total United States										
• % of Outlets	42.2	43.7	30.9	29.6	16.3	15.2	10.6	11.5	100.0	100.0
• % of Volume	39.3	40.9	50.0	48.7	7.7	7.2	3.0	3.2	100.0	100.0
• Avg. Monthly Volume (Gallons)	58.021	56.983	108.226	[illegible].106	31.387	31.780	18.552	18.656	66.740	65.079

Source: MPSI Americas, Inc., Tulsa, Oklahoma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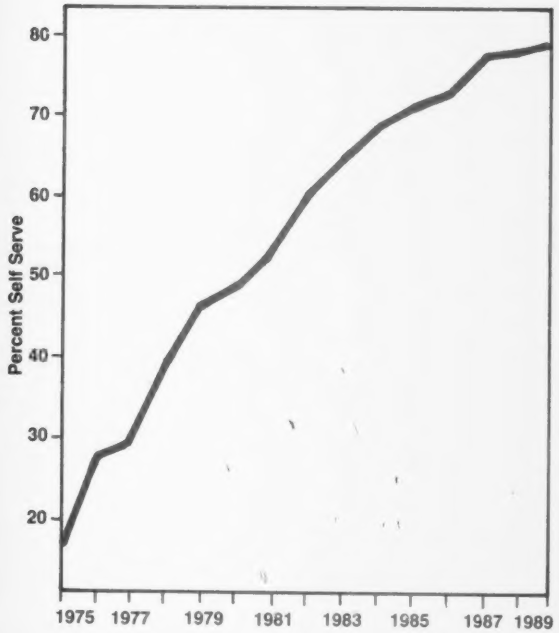
NEW MEXICO
MISSISSIPPI
ALABAMA
GEORGIA
S
TEXAS
LOUISIANA
FLORIDA

Self Serve Increases

American motorists continue to choose self sevice over full service when purchasing gasoline. Since 1975, self service gasoline sales have consistently increased at record rates from 22% to 80% last year, according to Amoco Oil Co. marketing research.

The market share for self serve last year jumped one percentage point from the previous year and represents an increase of more than six percentage points since 1984.

U.S. Self-Serve Motorist Gasoline Market Share (%)



State [a]	1989	1988	chg.
Alabama	82%	80%	-2
Arizona	92	93	+1
Arkansas	83	83	NC
California	90	91	+1
Colorado	92	92	NC
Connecticut	71	72	+1
Delaware	86	86	NC
D.C.	87	85	-2
Florida	90	91	+1
Georgia	88	89	+1
Idaho	88	86	-2
Illinois	87	88	+1
Indiana	86	88	+2
Iowa	85	85	NC
Kansas	80	84	+4
Kentucky	79	79	NC
Louisiana	90	91	+1
Maine	47	52	+5
Maryland	86	86	NC
Massachusetts	50	49	-1
Michigan	85	87	+2
Minnesota	82	84	+2
Mississippi	83	79	-4
Missouri	81	83	+2
Montana	90	88	-2
Nebraska	81	80	-1
Nevada	94	93	-1
New Hampshire	60	65	+5
New Mexico	90	92	+2
New York	58	58	NC
North Carolina	86	89	+3
North Dakota	73	79	+6
Ohio	86	85	-1
Oklahoma	86	84	-2
Pennsylvania	64	66	+2
Rhode Island	63	65	+2
South Carolina	88	89	+1
South Dakota	75	78	+3
Tennessee	84	83	-1
Texas	91	91	NC
Utah	94	94	NC
Vermont	55	58	+3
Virginia	87	89	+2
Washington	90	91	+1
West Virginia	74	78	+4
Wisconsin	87	89	+2
Wyoming	86	83	-3
All States	79	80	+1

Note: Self-Serve is illegal in New Jersey and Oregon.
Source: Amoco Oil, Monthly Survey.

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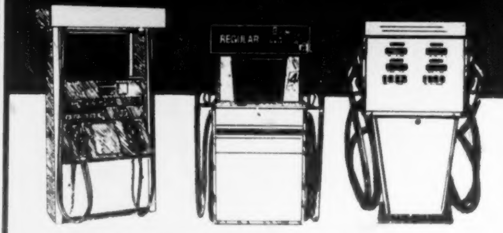

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Business at Service Stations

Dollar Volume and Product Sales

Year	No. of service stations(a)	Total sales (add 000,000,000)	Avg. sales per station (add 000)	Passenger car population (add 000)	Gasoline: Avg. gal. consumed per car per year	Gasoline: Total consumption (add 000,000 gal.)	Motor oil: Qts. per year	Motor oil: Sales (add 000,000 qt.)
1988	112,000	$ 91.9	$821	142,209	NA	NA	—	—
1987	115,870	89.2	770	140,693	515(b)	72,457(b)	—	—
1986	120,510	86.6	719	135,431	525(b)	71,101(b)	—	—
1985	124,600	100.8	809	131,864	525(b)	69,229(b)	—	—
1984	132,080	101.0	765	128,270	536(b)	68,914(b)	—	—
1983	136,570	103.1	755	126,727	553(b)	70,080(b)	--	—
1982	144,690	106.2	733	123,746	566(b)	70,040(b)	7.3	907
1981	151,250	101.7	672	123,462	576(b)	71,114(b)	7.3	909
1979	164,790	70.9	430	120,248	653(b)	78,522(b)	7.3	880
1977	176,465	56.5	320	113,696	716(b)	81,406(b)	7.9	900
1975	189,480	43.8	232	106,712	716(b)	76,406(b)	9.5	1,014
1972(c)	226,459	33.7	149	96,567	785(b)	75,805(b)	10.0	966

(a) Franchising in the Economy 1986-88, Dept. of Commerce; by definition of Census Bureau these are stations that get 50% or more of gross sales from petroleum products; (b) In September 1987, Federal Highway Administration revised its gallonage consumption data and re-calculated the averages back to 1970, thus these figures are not comparable with prior data in *NPN Factbook*; (c) Peak year for service stations.

Sources: Franchising in the Economy, 1986-1988; Federal Highway Administration and *NPN*.

Station Customers

Year	No. of service stations(a)	Privately owned passenger cars: Total (add 000)	Privately owned passenger cars: Avg. per station	Households owning cars: Total (add 000,000)	Households owning cars: Avg. per station	Licensed drivers: Total (add 000,000)	Licensed drivers: Avg. per station	Women drivers: Total (add 000,000)	Women drivers: Avg. per station
1988	112,000	142,209	1,270	78.0	696	164.2	1,466	78.9	704
1987	115,870	139,041	1,200	77.0	665	161.8	1,396	77.8	671
1986	120,510	135,431	1,124	76.0	631	159.4	1,323	76.2	632
1985	124,600	132,108	1,060	75.0	602	156.9	1,259	75.3	604
1984	132,080	128,270	971	74.0	560	155.4	1,176	74.3	562
1983	136,570	126,727	927	73.0	534	154.2	1,129	73.4	537
1982	144,690	123,746	855	72.0	497	150.3	1,038	71.7	491
1981	151,250	123,462	816	70.0	460	147.0	969	69.2	457
1979	164,790	120,248	731	65.9	400	143.3	868	66.8	403
1977	176,465	113,696	644	63.3	365	138.4	784	63.7	361
1975	189,480	106,712	563	60.5	319	127.8	662	56.8	294
1972(b)	226,459	96,567	426	52.8	232	118.4	522	52.6	232

(a) Franchising in the Economy 1986-88, Dept. of Commerce; Bureau of Census definition of service stations: 50% or more of dollar volume comes from the sale of petroleum products; (b) Peak year.

Sources: Based on data from Motor Vehicle Mfgs. Assn , Federal Highway Administration and *NPN*.

How Stations Rank in Sales (Billions of Dollars)

	1988	% Change '88-'87	1987	% Change '87-'86	1986	% Change '86-'85	1985	% Change '85-'84
All Retail Stores	1,612.0	6.7%	1,510.6	5.1%	1,437.5	4.2%	1,379.6	6.7%
Automotive Group	357.8	9.5	326.9	2.1	320.3	2.7	311.8	1.2
Food Group	331.0	5.3	314.3	4.1	301.8	6.3	283.9	5.0
General Merchandise	183.8	4.5	175.9	6.5	165.1	10.4	149.5	(2.2)
Eating and Drinking Places	157.4	6.6	147.6	9.1	135.3	1.4	133.4	7.1
Gasoline Service Stations	**108.0**	**4.7**	**103.2**	**6.1**	**97.3**	**(0.0)**	**101.2**	**1.8**
Apparel Group	83.0	4.9	79.1	5.7	74.8	0.7	74.3	14.1

Source: Survey of Current Business, Dept. of Commerce, Vol. 69, No. 1, January 1989.

Personal Consumption Expenditures

	(Billions of Dollars)						Seasonally Adjusted at Annual Rate—1988			
	1988	% Change '88-'87	1987	% Change '87-'86	1986	% Change '86-'85	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Total Expenditures	$3,226.0	7.1%	$3,012.1	7.6%	$2,799.8	7.7%	$3,128.1	$3,194.6	$3,261.2	$3,320.1
Durable Goods	449.9	6.6	421.9	4.8	402.4	12.0	437.8	449.8	452.9	459.3
Automobiles	208.0	6.2	195.8	0.5	194.9	15.2	202.2	208.7	210.2	210.9
Furniture	159.0	7.2	148.3	6.0	139.9	10.3	154.7	159.5	159.5	162.4
Other Durable	82.9	6.6	77.8	15.1	67.6	6.8	81.0	81.5	83.2	86.0
Nondurable Goods	1,047.2	4.9	997.9	6.2	939.4	3.8	1,016.2	1,036.6	1,060.8	1,075.2
Food	551.7	4.8	526.4	5.7	497.8	6.1	535.9	546.3	558.9	565.5
Clothing and Shoes	186.3	4.5	178.2	6.4	167.5	7.9	180.5	183.2	188.4	193.0
Gasoline and Oil	**78.8**	**2.3**	**77.0**	**2.3**	**75.3**	**(18.1)**	**76.3**	**78.8**	**80.5**	**79.8**
Other Nondurable Goods	230.4	6.5	216.3	8.8	198.8	5.3	223.5	228.2	233.0	236.9
Fuel Oil and Coal	17.3	6.8	16.2	1.3	16.0	1.9	17.0	17.2	17.4	17.7
Other Nondurable	213.1	6.5	200.1	9.5	182.8	5.7	206.6	211.0	215.6	219.2
Services	1,728.9	8.6	1,592.3	9.2	1,458.0	9.1	1,674.1	1,708.2	1,747.5	1,785.6

Source: Survey of Current Business, Dept. of Commerce, Vol. 69, No. 1, January 1989.

Retail Rankings: The Pruning Continues

On the whole, sales and earnings were healthy for the larger U.S. companies last year, but most of the majors and semi-majors are continuing to thin out their retail branded outlet populations.

According to data reported to NPN, the total count of branded stations among 20 leading companies was down by 8,745 in 1988. In fact, 13 of these top 20 lost a total of 10,402 outlets last year. Seven of the companies, most of them second tier majors added a total of 1,657 stations in 1988.

The pattern of attrition over the past few years keeps repeating itself. The top five companies in number of outlets in 1987 sold off or closed down a total of 5,964 stations last year. Of the top ten companies, only Unocal and Citgo added to their retail networks in 1988.

The big gainer in station numbers last year was Sun, which reported an increase of 1,245 outlets. More than 1,000 of those outlets came in the package of retail assets that came with Sun's Atlantic Petroleum acquisition.

Texaco's retail station population dropped by 2,234 outlets in 1988, a part of what Texaco refers to as a "historic restructuring" of the company following its emergence from Chapter 11.

		Outlets	*1987*
1	**Texaco**	15,389	(1)
2	**Exxon**	12,456	(2)
3	**Chevron**	11,969	(3)
4	**Mobil**	11,074	(4)
5	**Unocal**	10,926	(7)
6	**Shell**	10,847	(6)
7	**Amoco**	10,246	(5)
8	**Phillips**	9,757	(8)
9	**Citgo**	7,697	(10)
10	**BP America**	7,413	(9)
11	**Sun**	7,058	(12)
12	**Conoco**	4,843	(11)
13	**Gulf (Cumberland Farms)**	4,463	(13)
14	**American Petrofina**	3,458	(14)
15	**Marathon**	2,527	(15)
16	**Ashland**	2,110	(19)
17	**Diamond Shamrock**	1,973	(20)
18	**Kerr-McGee**	1,941	(21)
19	**Arco**	1,673	(22)
20	**Total**	1,439	(17)

	Number of States		Branded retail outlets	
	'88	'87	'88	'87
American Petrofina	24	24	3,458	4,117
Amoco	30	30	10,246	11,291
Arco	5	5	1,673	1,738
Ashland	19	18	2,110	2,103
BP America	28	29	7,413	7,716
Chevron	33	34	11,969	12,928
Citgo	40	39	7,697	7,458
Conoco	37	39	4,843	5,918
Diamond Shamrock	8	9	1,973	1,976
Exxon	37	37	12,456	13,451
Gulf (Cumberland Farms)	12	13	4,463	4,463
Kerr-McGee	21	21	1,941	1,937
Marathon	8	6	2,527	2,488
Mobil	36	37	11,074	11,795
Phillips	33	36	9,757	10,731
Shell	41	41	10,847	10,947
Sun	28	28	7,058	5,813
Texaco	45	44	15,389	17,623
Total	20	18	1,439	2,394
Unocal	43	41	10,926	10,817

Source NPN questionnaires

Shell Tops In Credit Card Sales; Amoco Has Most Cards In Circulation

Shell Oil Co., the nation's largest gasoline retailer last year in market share, was also king of the hill in terms of proprietary oil company credit card sales and total credit volume in 1988.

According to the Nilson Report, a newsletter for credit card executives in the petroleum and other industries, Shell billed out more than $3.25-billion to the company's cardholders and had a total of $3.6-billion in credit charges last year. Shell also sends out the most statements to active accounts each month (5.1-million). Amoco, however, has the most company cards in circulation—16-million to Shell's 15.3-million—and was second to Shell in total credit volume at almost $3-billion.

Overall, the 40 companies included in the report did over $21.8-billion in proprietary card sales last year, an increase of 4% over the previous tabulation. Total transactions remained steady at 1.46-billion last year as did the number of oil company proprietary cards (118-million).

Although they represent little over one fifth of the total, charges for gasoline outlet purchases have increased dramatically (up 37%) for third-party cards, the report says. Bank card volume is up 41% while volume for the Discover card jumped from $18.8-million to $256-million. Discover, of course, is one of the newer players in the plastic marketplace.

The Nilson Report is published monthly. For information, write P.O. Box 49936, Los Angeles, CA 90049.

Profile: 40 Oil Company Credit Cards in the U.S.—1988

(Add 000 in all categories)

Company	Active Accounts(a)	Total Proprietary Accounts	Proprietary Sales Volume	Bank Card Sales Volume	T&E Sales Volume	Discover Cards	Other Cards(b)	Total Credit Sales(c)
Shell*	5,100	15,300	$3,250,000	$363,000	—	$1,500	$3,000	$3,617,500
Chevron	3,600	11,500	$2,600,000	$350,000	$10,000	$2,600	—	$2,962,600
Mobil*	3,600	14,000	$2,100,000	$300,000	$80,000	—	—	$2,480,000
Amoco*	3,450	16,000	$2,418,000	$357,000	$199,000	—	$5,000	$2,979,000
Exxon*	3,200	12,100	$2,450,000	$219,000	$5,000	$7,000	—	$2,681,000
Texaco*	3,150	13,300	$2,200,000	$400,000	$200,000	$50,000	$50,000	$2,900,000
Unocal	2,100	7,000	$1,850,000	$250,000	$68,000	$19,000	—	$2,187,000
Sohio	2,000	5,000	$1,200,000	$85,000	—	$12,000	—	$1,297,000
Phillips	1,100	4,500	$900,000	$200,000	—	$25,000	—	$1,125,000
Sunoco*	950	4,700	$750,000	$115,000	$30,000	$10,000	—	$905,000
Citgo	750	3,650	$295,000	$108,000	—	$3,500	—	$406,500
Gulf	478	3,325	$280,000	$63,500	—	$4,700	—	$348,200
Conoco	353	1,800	$305,000	$65,000	—	$76,000	—	$446,000
Diamond*	352	1,250	$290,000	$52,000	$3,200	$2,500	—	$347,700
Marathon	300	1,100	$223,000	$23,500	—	$3,500	—	$250,000
Total	180	945	$155,000	$110,000	—	$9,000	—	$274,000
Fina	161	722	$106,000	$30,500	$45	$5,100	$1,000	$142,645
Ashland	120	330	$100,000	$60,000	—	$11,000	—	$171,000
Kerr/McGee	114	565	$56,000	$15,000	—	$600	—	$71,600
Sinclair	84	357	$59,000	$18,000	—	$2,900	$1,000	$80,900
Crown	77	175	$42,000	$40,000	—	$1,000	$1,000	$84,000
Beacon	67	242	$45,000	$2,000	$35	$100	—	$47,135
Coastal	60	200	$35,000	$15,100	—	$1,600	—	$51,700
Tenneco	40	113	$27,000	$22,597	—	$5,016	$644	$55,257
Cenex	30	195	$21,000	$3,000	—	—	$80	$24,080
Getty	12	35	$20,000	$59,000	—	$495	—	$79,495
Tesoro	9	42	$7,000	$1,400	—	$110	—	$8,510
Emro	9	44	$23,000	$4,000	—	—	—	$27,000
Kent	6	23	$3,000	$1,000	—	—	—	$4,000
Aloha	5	23	$3,000	$1,000	—	—	—	$4,000
Sing	5	14	$4,000	$4,043	—	$60	—	$8,103
Canal	3	11	$2,000	—	—	—	—	$2,000
Gibble	3	10	$2,000	$680	—	$100	—	$2,780
MFA	2	5	$2,000	$2,800	—	$2,000	—	$6,800
Kwik Fill	2	5	$30,000	$4,000	—	—	—	$34,000
Certified	2	8	$2,000	—	—	—	—	$2,000
Illico	2	4	$1,000	$1,000	$30	$50	—	$2,080
Iowa	1	2	$2,000	$3,600	—	$25	$30	$5,655
Coast	1	1	$2,000	$1,700	—	$15	$35	$3,750
E-Z Serve	1	5	$1,000	$5,000	—	—	$3,000	$9,000
Totals (top 10)	**28,250**	**103,400**	**19,718,000**	**2,639,000**	**592,000**	**127,100**	**58,000**	**23,134,100**
Totals (top 20)	**31,142**	**117,414**	**21,317,000**	**3,174,500**	**595,245**	**245,900**	**60,000**	**25,672,645**
Grand total (40)	**31,478**	**118,599**	**21,861,000**	**3,356,420**	**595,310**	**256,471**	**64,789**	**26,133,990**

*Includes annual-fee cards. (a) Active accounts equal the number of statements mailed monthly. (b) Other cards include third-party fleet cards and government cards. (c) Total credit sales does not include $2.2-billion generated on general purpose cards at convenience stores that do not offer proprietary credit.

Source: The Nilson Report, January 1989.

Dollars Per Day Survey—1987[a]

Company	No. of Stores	No. of Gasoline Units	% Stores with Gasoline	Gasoline Units Added during Year	Gal. Sold in 1987 (Add 000)	Avg. Gal. Sold per Day per Unit	Gasoline Margin per Gal.	% of Sales Contributed by Gasoline	% of Margin Contributed by Gasoline
Casey's	653	653	100%	67	226,964	1,001	10.6¢	38.5%	25.2%
Circle K	4,077	3,011	74	578	1,073,500	1,077	10.2	37.0	14.0
Silcorp	1,049	234	22	34	98,119	1,242	N/A	N/A	N/A
Dairy Mart	1,188	438	37	23	178,000	1,146	8.8	N/A	10.8
Sunshine Jr	316	306	97	(11)	90,900	760	9.7	49.0	24.0
National Convenience	1,119	874	78	151	420,000	1,437	9.8	39.9	16.4
Munford	705	407	58	(41)	49,140	500	N/A	N/A	N/A
Southland	7,818	3,545	45	(49)	1,780,746	1,367	8.7	21.0	7.0
Totals	**16,925**	**9,468**	**56**	**752**	**3,917,368**	**1,198**	**N/A**	**27.4**	**N/A**

[a] As ranked in 18th Annual Dollars Per Day Survey [illegible] Cumberland Farms, which are privately owned but are nevertheless major gasoline retailers.

Box Score on C-Store Growth

Year	No. of C-stores	No. of Gasoline Units	% of Stores with Pumps	Gal. Pumped per Unit per Year	Total Gal. Pumped by C-stores (Add 000)	% of Total Gasoline Market Supplied by C-stores (Billions)	% of Increase over Previous Year
1987	70,000	39,151	56%	437,270	17,119,557	15.7%	0.0%
1986	64,000	34,656	54	485,450	16,823,755	15.8	9.3
1985	60,000	32,064	53	465,740	14,933,487	14.4	12.0
1984	58,000	31,528	54	447,855	14,119,972	13.9	10.9
1983	53,000	28,164	53	438,365	12,346,111	12.4	24.1
1982	50,000	24,555	49	401,665	9,865,663	10.0	43.2
1981	39,000	18,330	47	379,600	6,958,068	7.0	14.2
1980	39,000	17,160	44	359,890	6,175,712	6.1	—

Source: 18th Annual Dollars Per Day Survey of the Convenience Store Industry by John Roscoe and Associates, published in [illegible] 1989.

C-Store Gasoline Growth Slows Down

Since the beginning of the 1980's, convenience store companies have moved adroitly and aggressively to carve out larger shares of the gasoline marketplace. Indeed, three major C-store firms—Cumberland Farms, Southland Corp. and Circle K, each with billion-plus annual gallonages—have boosted themselves into the upper ranks of U.S. gasoline marketing companies.

However, there appears to be a throttling down of the fast paced growth of C-store companies in the gasoline business, according to the 18th Annual "Dollars Per Day Survey" of the Convenience Store Industry. Published by John F. Roscoe, a West Coast chain marketer, the latest Survey reports that while individual companies are getting good results, the overall penetration of C-stores in the gasoline market has slowed to a standstill, at least temporarily.

Total estimated gallons of gasoline sold for convenience stores in 1987 was 17.1-billion, the Dollars Per Day Survey says, an increase of about 300-million gal. over 1986. However, the 15.7% C-store share of total 1987 highway gasoline sales (109.1-billion gal.) was virtually unchanged from the previous year market share percentage (see table above). This followed a string of sometimes spectacular increases dating from 1980, when the total C-store share was only 6% of the gasoline market.

This somewhat flat performance is reflected in a decline in average gallons pumped per C-store unit from 1986 to 1987. According to the Survey, the typical store pumped 437,270-gal. in 1987, down from the 485,450-gal. per store average in 1986. In fact, average store gallonage in 1987 was the lowest in five years.

Survey publisher John Roscoe sees a widening gap between oil company and convenience store gasoline units. "It appears that traditional convenience stores' gasoline units are not keeping pace with the gasoline industry," he says. "The oil companies continue to improve and upgrade their units. Most convenience stores still operate outdated two pump units. Gallonage in these units will continue to suffer as the majors build their new million dollar units."

Still, major C-store firms continue to invest in gasoline facilities and the percentage of stores with gasoline units increased to an all-time high of 56% in 1987. The eight leading C-store firms tracked in the Dollars Per Day Survey (see table) reported a net increase of 752 gasoline units in 1987, led by Circle K with 578 units added during the year.

Slowdown in the C-Store Growth Rate

In contrast to the decline in the traditional service station population, the number of convenience stores continues to rise annually. However, in 1988 the pace of growth took a dip from the 5%-plus increases in C-stores over the past several years.

According to preliminary data from the soon-to-be-released 1989 State of the Convenience Store Industry Report from the National Assn. of Convenience Stores, the number of C-stores climbed 2.5% from 67,500 in 1987 to 69,200 in 1988. In 1987, store growth was 5.4%.

Total industry sales grew by 2.7% to $61.2-billion last year, NACS says, compared to a 10.6% increase the year before. C-store gasoline sales amounted to $22-billion in 1988 (up 7.3%) while merchandise sales edged up slightly from $39.1-billion to $39.2-billion.

Total industry profits of $1.163-billion in 1988 were down 11.4% from $1.312-billion in 1987. Average investment for a new urban store was $773,300, compared to $682,800 the year before.

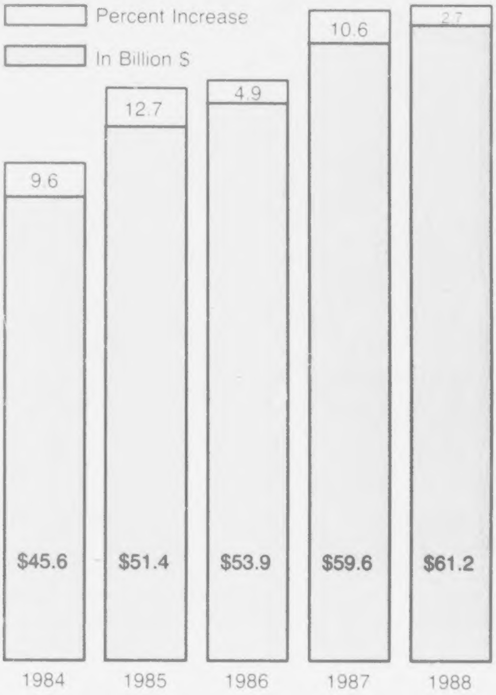
Meanwhile, data from the 1988 NACS survey shows that C-store gasoline margins slipped somewhat in 1987 (See table below), but non-gasoline margins increased to 35.9%, the best in five years reported.

C-store Gross Margin As a Percent of Sales

Survey Year	Gasoline Margin %	Non-Gasoline Margin %	Average Margin %
1987	10.6	35.9	24.4
1986	11.2	35.5	25.1
1985	7.3	32.2	22.8
1984	6.0	32.0	21.6
1983	5.0	31.5	20.7

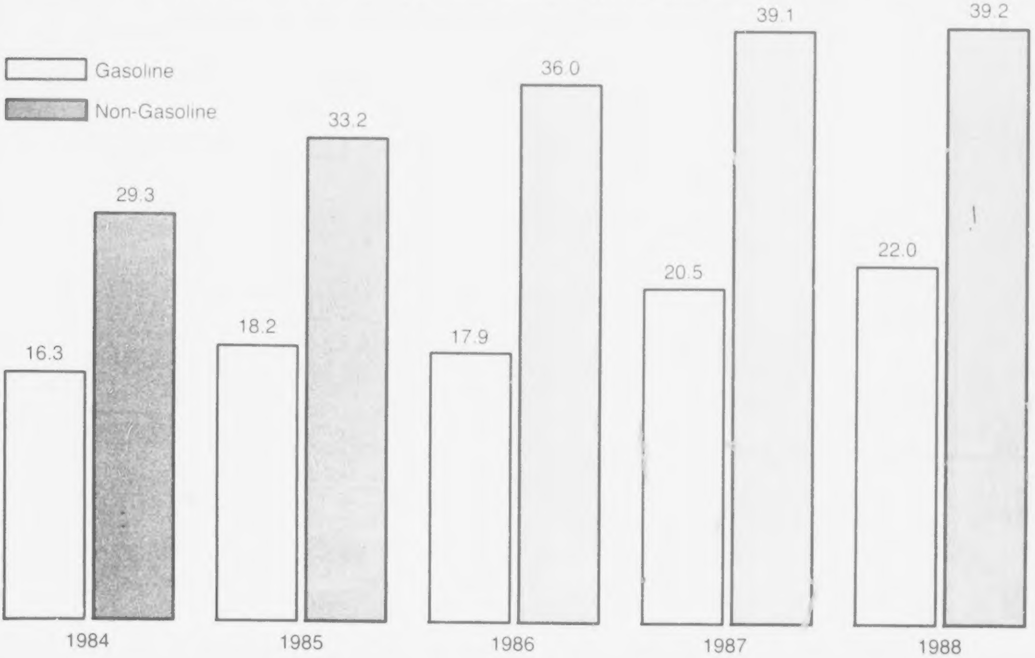
Source: NACS "1988 State of the Convenience Store Industry" Report

Total Convenience Store Industry Sales



Source: NACS "1989 State of the Industry" Report

Total Non-Gasoline vs. Gasoline Sales (in Billion $)



C-Stores Average by Product Category

	Percent of Non-Gas Purchases				Gross Margin Percent		Inventory Turnover Rate
	1987	1986	1985	1984	1987	1986	1987
COOLER							
Beer (Hot & Cold)	13.6%	13.7%	13.9%	13.7%	27%	26%	21.3%
Soft Drinks (Hot & Cold)	9.7	10.3	10.2	11.3	35	34	19.5
Juices	1.2	1.4	1.0	0.8	40	38	16.6
Milk & Milk Products	5.8	5.9	6.6	6.9	23	22	60.8
Packaged Deli	0.9	0.8	1.2	1.3	34	35	18.1
Produce	0.7	0.6	0.4	0.4	26	28	46.1
Eggs	0.3	0.3	0.4	0.4	26	23	26.6
FROZEN							
Frozen Food	0.6	0.7	0.7	0.7	36	37	7.1
Ice Cream	1.3	1.4	1.6	1.6	39	37	14.8
Ice	0.8	1.0	0.9	0.9	56	54	31.5
ROOM TEMP.							
Bread & Cakes	3.3	3.3	3.5	4.0	29	29	59.3
Cookies	0.7	0.9	0.8	0.8	36	36	11.8
Salty Snacks (Chips, Nuts, etc.)	4.2	3.9	3.7	3.8	36	37	32.1
Candy & Gum	5.3	4.9	4.9	4.9	42	42	26.1
Groceries	5.6	5.6	5.9	9.0	35	36	8.0
Health & Beauty Aids	3.0	3.0	3.4	3.3	38	39	6.9
Tobacco	20.7	19.8	17.8	18.1	29	29	23.7
Publications	3.7	3.7	5.4	4.0	20	21	19.7
Wine/Liquor	1.3	1.4	1.3	1.3	30	30	16.4
Automotive/Motor Oil	1.4	0.9	0.7	0.8	40	36	14.5
General Merchandise	2.8	2.1	2.6	2.3	41	40	10.9
FAST FOOD							
Sandwiches—Fresh	1.8	1.3	1.7	1.7	41	39	54.2
Sandwiches—Frozen	1.2	1.3	1.4	1.2	37	38	31.1
Deli Services (excluding sandwiches)	3.0	3.3	3.0	1.3	45	47	34.4
Food Cooked On-site	0.8	0.4	0.3	0.2	42	47	64.6
Fountain Drinks	2.4	3.6	2.6	2.4	60	61	20.5
Frozen Beverages	0.9	0.9	0.9	0.5	43	41	8.9
Hot Beverages	2.1	2.7	1.6	1.2	66	66	31.8
Other Fast Food	0.9	0.9	1.6	1.2	39	42	41.5
TOTAL NON-GAS MERCHANDISE	100%	100%	100%	100%			

Source: NACS "1988 State of the Convenience Store Industry" survey.

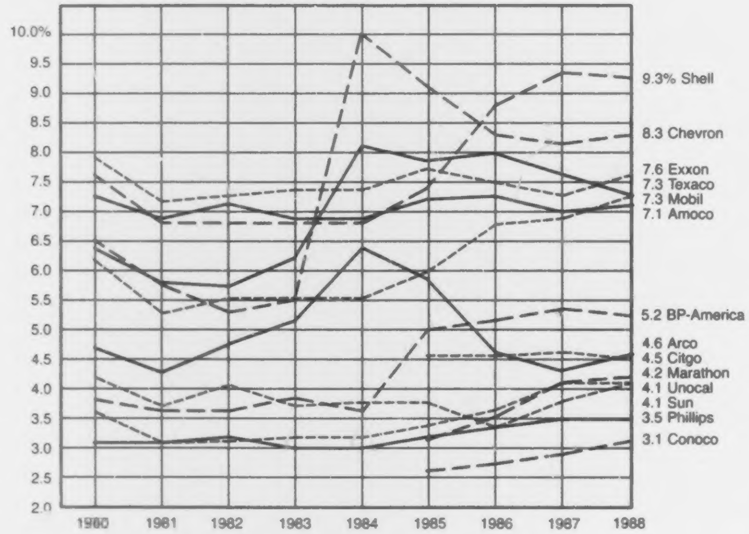
Profit/Loss Comparison: 1986-1987

	11-50 Stores		51-100		101-500		Over 500		Average	
	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986
Non-Gas Sales	43%	39%	54%	56%	58%	50%	70%	64%	66%	60%
Gas Sales	57	61	46	44	42	50	30	36	34	40
Total Sales	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cost of Goods Sold	80.5	79.3	77.5	76.6	76.6	76.7	74.1	72.3	75.6	74.9
Gross Profit	19.5	20.7	22.5	22.4	23.4	23.3	25.9	27.7	24.4	25.1
Direct Store Operating Expense	14.3	14.4	16.8	17.6	17.9	16.8	19.0	19.9	18.2	18.3
Store Operating Profit	5.2	6.3	5.7	4.8	5.5	6.6	6.9	7.8	6.2	6.8
Corporate G & A	(3.2)	(3.4)	(3.7)	(3.5)	(4.2)	(4.8)	(4.4)	(4.5)	(4.2)	(4.3)
Other Income	1.3	.8	1.3	2.0	1.3	1.6	1.4	1.6	1.5	1.7
Other Expense	(.4)	(.5)	(.8)	(.9)	(.9)	(1.4)	(1.7)	(1.9)	(1.3)	(1.5)
Pretax Profit	2.9%	3.3%	2.5%	2.4%	1.7%	2.0%	2.2%	3.0%	2.2%	2.6%

Source: NACS "1988 State of the Convenience Store Industry" survey.

TRENDS IN GASOLINE MARKET SHARES

14 Top Marketers 1980-1988



N.B.: This graph was revised in 1988 to include all marketers with national shares of 2.0% or more. In some instances, pre-1985 data was not available.

Shell Does It Again: Keeps Gasoline Derby Title For Third Year In A Row

Even though its gross volume dipped slightly—a skimpy three-tenths of one percent—Shell Oil Co. had more than enough headway over its rivals in the annual "gasoline derby" to retain its title for the third time as the top gasoline marketer.

Shell wrapped up 1988 with gross gasoline sales of 10.6-billion gal., slightly more than 1-billion gal. ahead of the second-place contender but down 31-million gal. from its 1987 peak. The slippage was roughly equivalent to one day's volume of gasoline sales.

The only thing that makes this aberration noticeable or notable at all is the fact that this was the first time since 1984 that Shell's annual gross volumes had failed to top the previous year's. Its 10.6-billion gal. in 1987 is still the industry's all-time high.

Second place in the gasoline derby went to Chevron, followed by Exxon, Texaco, Mobil, Amoco, BP-America and Arco, in that order. The big changes in the top 10 were Texaco's replacement by Exxon U.S.A. as the third largest gasoline vendor, and Mobil's leap-frogging of Amoco to take over fifth place. Texaco, which fought many major battles in 1988 just to stay alive, skidded to fourth while Amoco dropped to sixth.

Marathon Petroleum, which had been neck-to-neck with Sun Refining & Marketing in 1987, squeezed past the Philadelphia-based company to take a firm hold on 10th place, immediately behind a resurgent Citgo Petroleum. Unocal also skipped past Sun, occupying 11th place while Sun sank to an ignoble 12th position.

Shell's 10.6-billion gal.—the second year in a row that it sold more than 10-billion gal.—was enough to give it 9.284% of the U.S. marketplace. Chevron's share was 8.267% with Exxon at 7.618%, Texaco at 7.309%, Mobil at 7.282% and Amoco at 7.080%.

Some of the companies had relatively strong growth patterns in gasoline sales in 1988. Unocal, for example, was up 8.5%. Conoco had a 7.5% increase but that wasn't enough to change its position in the lineup. Citgo enjoyed a 5.3% increase. Mobil rang up a 5.2% increase. Of the leaders, Chevron rose 2.3% and Exxon, 5.0%. Good in both cases but not enough to win upscale promotions. Leader Shell, knew fourth place Texaco and BP-America were the only big companies to lose ground in 1988. Shell was off 0.3%, Texaco 3.4% and BP-America, 3.0%.

A point to remember is that one-third of the top 14 gasoline marketers are owned in whole or in part by foreign interests. It also means that three out of every 10-gal. of gasoline sales are in their hands. Shell and BP-America are wholly-owned subsidiaries of BP-London and the Royal Dutch Shell Group; Citgo and Texaco Marketing are owned 50-50 by Venezuelan and Saudi Arabian interests; and Conoco (DuPont) is owned partially by French interests.

The gasoline volumes used in this National Petroleum News boxscore are from company annual reports and K-filings with the Securities and Exchange Commission. Special attention should be paid to the fact that these are gross sales, not retail pump sales. Gross sales include wholesale and interrefinery exchanges.

At right is the 1988 lineup as compiled by NPN. The table below right gives the revised figures for 1987, for comparison purposes.

Chevron tops in total products

Even though it was beaten by Shell Oil in gross gasoline volumes, Chevron U.S.A. continued to be the leader in total product sales—gasoline, distillates, resid and all the other items that pour out of refineries in normal operating procedures.

Chevron averaged 1.5-million b/d to lead the parade. Shell was second with 1.3-million b/d, with Texaco, Exxon and Amoco following in that order.

Some of the percentage increases were impressive. Citgo reported a 10% surge while Unocal was up 8.6% and Mobil, 7.2%. Phillips and Exxon were almost even-stephen, with Phillips up 5.4% and Exxon 5.3%. BP-America was off 3.8%, Shell 2.8% and Sun, almost 1%.

Here's the product sales boxscore, as announced by the various companies in their annual reports:

1988 Refined Product Sales

(Add 000 b/d)

	1988	1987	% [illegible]ng.
Chevron	1,451	1,430	1.5%
Shell	1,314	1,352	(2.8)
Texaco	1,175	1,159	1.4
Exxon	1,113	1,057	5.3
Amoco	953	918	3.8
Mobil	927	865	7.2
BP-America	812	844	(3.8)
Sun	699	705	(0.9)
Arco	668	680	(1.2)
Phillips	585	555	5.4
Marathon	559	527	6.1
Unocal	520	479	8.6
Conoco	502	479	4.8
Citgo	493	448	10.0

Gross Gasoline Gallons and Relative Market Shares—1988[a]

(Projection: 1988 sales equal 114.2-billion gal.) (b)
(Add 000 gal.)

	Rank	% Share of Mkt.	Gross Gal. (c)	% Chng. vs 1987
Shell	1	9.284%	10,593,030	(0.3%)
Chevron	2	8.267	9,427,950	2.3
Exxon	3	7.618	8,692,110	5.0
Texaco	4	7.309	8,339,520	(3.4)
Mobil	5	7.282	8,308,860	5.2
Amoco	6	7.080	8,078,910	1.2
BP-America	7	5.222	5,963,370	(3.0)
Arco	8	4.595	5,242,860	1.2
Citgo	9	4.541	5,181,540	5.3
Marathon	10	4.178	4,767,630	3.3
Unocal	11	4.084	4,660,320	9.7
Sun	12	4.071	4,64[illegible]990	0.7
Phillips	13	3.452	3,938,810	0.4
Conoco	14	3.090	3,525,900	7.5
Total		**80.0**	**91,365,800**	**2.0**

(a) Preliminary data; (b) Retail gasoline gallonage for 1988 projected by NPN and based on FHA and API reports; (c) gross gasoline volumes as reported in annual reports, 10-K's and internal summaries; most numbers were rounded to retain comparability. NB: Cumberland Farms-Gulf, Getty, Circle K and Southland, while all big retailers, were excluded from this boxscore since all lack refineries and their volumes come from many sources, including some of the branded companies above.

1987 Gross Gallons and Relative Market Shares (revised)

(FHA retail sales in 1987 totaled 113.9-billion gal.)
(Add 000 gal.)

	Rank	Share of mkt.	Gross gal.	% Chng. vs 1986
Shell	1	9.325%	10,623,690	11.8%
Chevron	2	8.087	9,213,330	0.6
Texaco	3	7.575	8,630,790	(1.2)
Exxon	4	7.266	8,278,200	(1.6)
Amoco	5	7.010	7,986,930	(0.4)
Mobil	6	6.930	7,894,950	7.7
BP-America	7	5.396	6,147,330	12.9
Arco	8	4.548	5,181,540	3.0
Citgo	9	4.319	4,920,930	(2.7)
Sun	10/11	4.050	4,614,330	4.5
Marathon	10/11	4.050	4,614,330	4.9
Unocal	12	3.727	4,246,410	6.5
Phillips	13	3.445	3,924,480	5.3
Conoco	14	2.879	3,280,620	9.7
Total		**79.0**	**89,557,860**	**(1.2)**

NB: See footnotes in 1988 boxscore inasmuch as they also apply here.

Share of Market—Top 20 Companies in 1987

Production

	Crude oil and NGL(a) (Add 000 b/d)	Crude oil and NGL(a) % of Mkt.		Natural gas Millions/CF	Natural gas % of Mkt.
BP America	851.3	8.51%	Chevron	708,465	4.34%
Exxon	756.0	7.55	Mobil	656,635	4.02
Arco	655.0	6.64	Texaco	644,590	3.95
Shell	558.0	5.58	Exxon	619,770	3.79
Texaco	540.0	5.40	Amoco	617,000	3.78
Chevron	506.9	5.07	Shell	558,085	3.42
Amoco	394.0	3.94	Arco	464,280	2.84
Mobil	338.0	3.38	Tenneco	368,377	2.26
Phillips	287.0	2.87	Phillips	281,780	1.73
USX/Marathon	171.1	1.71	Occidental	281,415	1.72
Unocal	167.0	1.67	USX/Marathon	274,480	1.68
Sun	159.3	1.59	Unocal	271,925	1.66
Occidental	129.0	1.19	Sun	230,315	1.41
DuPont/Conoco	107.0	1.07	DuPont/Conoco	219,365	1.34
Tenneco	100.9	1.01	Burlington Northern	151,000	0.92
Burlington Northern	79.8	0.80	Union Pacific/Champlin	124,830	0.76
Amerada Hess	68.5	0.68	Enron	120,450	0.74
City of Long Beach	67.8	0.68	Pennzoil	115,052	0.72
Union Pacific/Champlin	61.1	0.61	Consolidated Nat'l. Gas	109,562	0.67
Enron	57.1	0.57	Mesa	102,261	0.63

Proved Reserves

	Crude oil and NGL(a) (Million/bbl.)	Crude oil and NGL(a) % of Mkt.		Natural Gas (Billions/CF)	Natural Gas % of Mkt.
BP America	2,953.0	8.34%	Amoco	10,690	6.57%
Arco	2,818.0	7.96	Exxon	9,761	6.00
Shell	2,782.0	7.86	Mobil	7,741	4.76
Exxon	2,634.0	7.44	Chevron	7,078	4.35
Chevron	1,809.0	5.11	Shell	6,541	4.02
Amoco	1,670.0	4.72	Arco	5,854	3.60
Texaco	1,603.0	4.53	Texaco	4,783	2.94
Mobil	1,024.0	2.89	Unocal	4,399	2.71
Unocal	656.0	1.85	Phillips	3,369	2.07
Sun	621.0	1.75	USX/Marathon	3,277	2.02
USX/Marathon	621.0	1.75	Tenneco	2,943	1.81
Phillips	457.0	1.29	Burlington Northern	2,807	1.73
Occidental	457.0	1.29	Occidental	2,734	1.68
DuPont/Conoco	351.0	0.99	Sun	2,232	1.37
Tenneco	270.0	0.76	DuPont/Conoco	1,959	1.20
Amerada Hess	201.0	0.57	BP America	1,932	1.19
Santa Fe	129.3	0.39	Mesa	1,904	1.17
Pennzoil	135.0	0.38	Anadarko	1,717	1.06
Union Pacific/Champlin	130.1	0.37	Enron	1,360	0.84
Mesa	88.4	0.25	Union Pacific/Champlin	1,327	0.82

Refining Capacity

	Operable Capacity (000 b/d)	% of Total capacity	Runs (000 b/d)(b)	% of U.S. total	% utilized
Chevron	1,718.6	11.35%	1,387.7	10.71%	77.7%
Exxon	1,169.0	7.72	1,026.0	7.92	87.8
Shell	1,065.7	7.04	969.0	7.48	90.9
Amoco	939.0	6.20	842.0	6.50	89.7
Texaco	881.5	5.82	836.0	6.45	94.8
Mobil	755.0	4.99	645.0	4.98	85.4
Arco	668.0	4.41	669.4	5.17	100.2
BP America	667.6	4.41	622.5	4.81	99.2
USX/Marathon	513.0	3.39	452.5	3.49	88.2
Unocal	497.0	3.28	428.0	3.30	86.1
Sun	460.0	3.04	427.2	3.30	92.9
DuPont/Conoco	394.3	2.60	348.0	2.69	88.3
Ashland	346.5	2.29	319.1	2.46	92.0
Phillips	305.0	2.01	302.0	2.33	99.0
Coastal	290.4	1.92	173.8	1.34	59.8
Koch	280.0	1.85	NA	NA	—
Petroleos de Venezuela(c)	226.1	1.49	194.3	1.50	85.9
Total Petroleum	191.1	1.26	172.7	1.33	90.4
Kerr-McGee	164.8	1.09	140.9	1.09	85.5
Solomon	155.7	1.03	NA	NA	—

(a) Natural Gas Liquids and Condensate

(b) Runs are not listed in the usual ranking order; they are keyed to operable capacities in Column 1, hence some are not listed in their correct numerical positions.

(c) Petroleos de Venezuela, the Venezuelan national oil company, owns 50% of Citgo Petroleum and 50% of Champlin Refining Company. In 1987, Citgo's operable refining capacity averaged 297,000 b/d and Champlin's averaged 155,200 b/d.

Share of Market —Concentration Ratios

(% of U.S. total)

Gasoline Sales

	1987	1986	1985	1980	1975	1970	1965
4 Firms	28.9%	29.5	29.8	28.5	29.5	30.7	—
8 Firms	48.7	49.6	50.3	49.5	50.3	54.6	—
15 Firms	65.0	66.4	67.7	66.3	68.6	74.9	—
20 Firms	70.2	70.5	71.8	72.1	74.7	80.[illegible]	—
30 Firms	76.4	76.6	71.2	77.9	—	—	—

Proved Reserves of Crude Oil and Liquids

	1987	1986	1985	1980	1975	1970	1965
4 Firms	31.6%	29.7	29.3	31.1	36.3	—	—
8 Firms	48.9	47.1	47.6	46.3	55.6	—	—
15 Firms	58.5	57.2	57.9	59.5	70.4	—	—
20 Firms	60.5	59.3	60.0	62.7	74.5	—	—
30 Firms	62.0	61.0	61.7	65.2	—	—	—

Production of Crude Oil and Liquids

	1987	1986	1985	1980	1975	1970	1965
4 Firms	28.3%	26.6	26.1	25.3	26.0	26.3	23.9
8 Firms	46.1	44.6	43.5	40.8	41.2	41.7	38.5
15 Firms	57.3	56.4	55.2	56.1	57.0	56.9	50.3
20 Firms	60.6	59.7	58.4	60.6	61.2	61.1	55.0
30 Firms	63.9	63.2	61.9	64.8	—	—	—

Refining Capacity

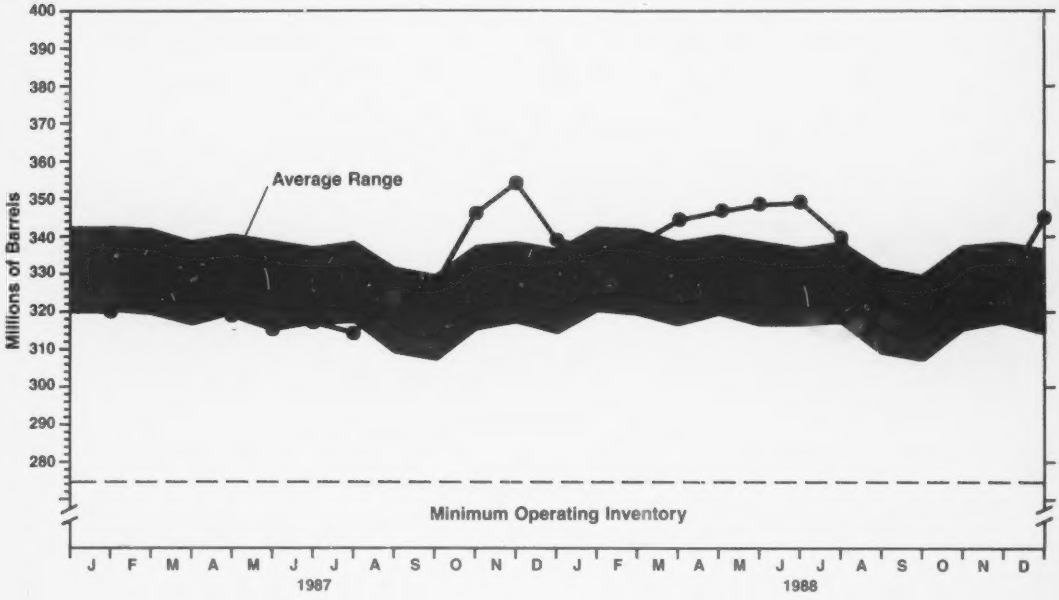
	1987	1986	1985	1980	1975	1970	1965
4 Firms	32.2%	33.2	34.4	29.0	29.9	32.5	30.4
8 Firms	52.0	53.0	54.4	49.0	53.5	57.5	54.3
15 Firms	70.5	71.6	73.0	67.0	74.1	78.1	75.0
20 Firms	77.2	79.0	80.3	74.5	81.3	84.3	83.0
30 Firms	86.3	87.9	88.8	82.3	—	—	—

Refinery Runs

	1987	1986	1985	1980	1975	1970	1965
4 Firms	32.6%	33.2	33.9	31.2	32.9	34.2	31.0
8 Firms	54.0	55.3	57.3	53.9	57.7	61.0	55.3
15 Firms	73.1	74.7	76.5	73.6	79.4	84.6	73.3
20 Firms	79.2	80.9	82.5	81.5	86.8	91.1	81.4

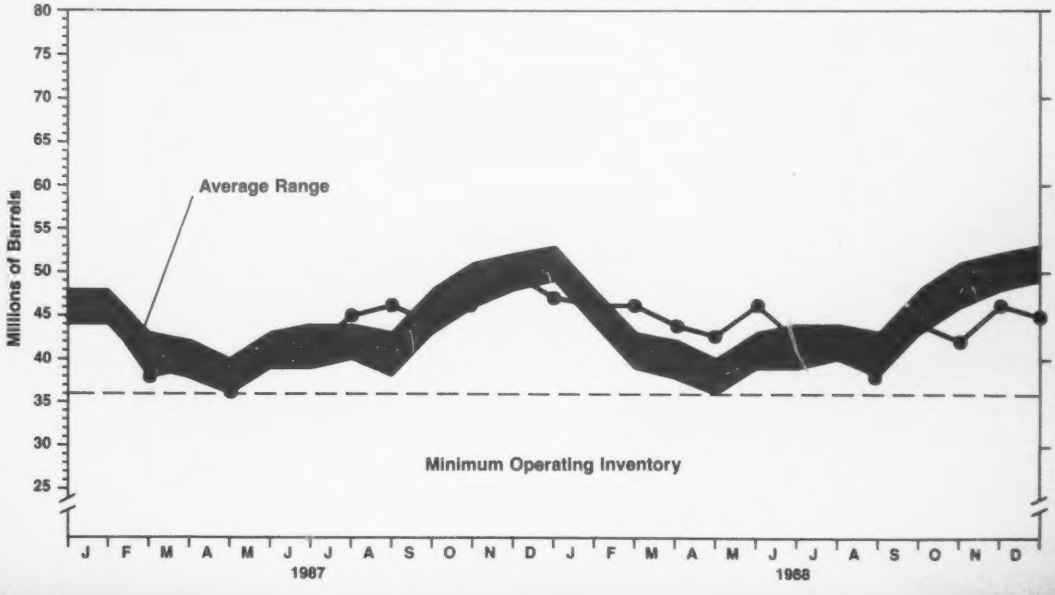
Source: American Petroleum Institute, Market Shares and Individual Company Data for U.S. Energy Markets 1950-1986, published October 1987.

Stocks of Crude Oil, U.S. Total (Millions of bbl.)

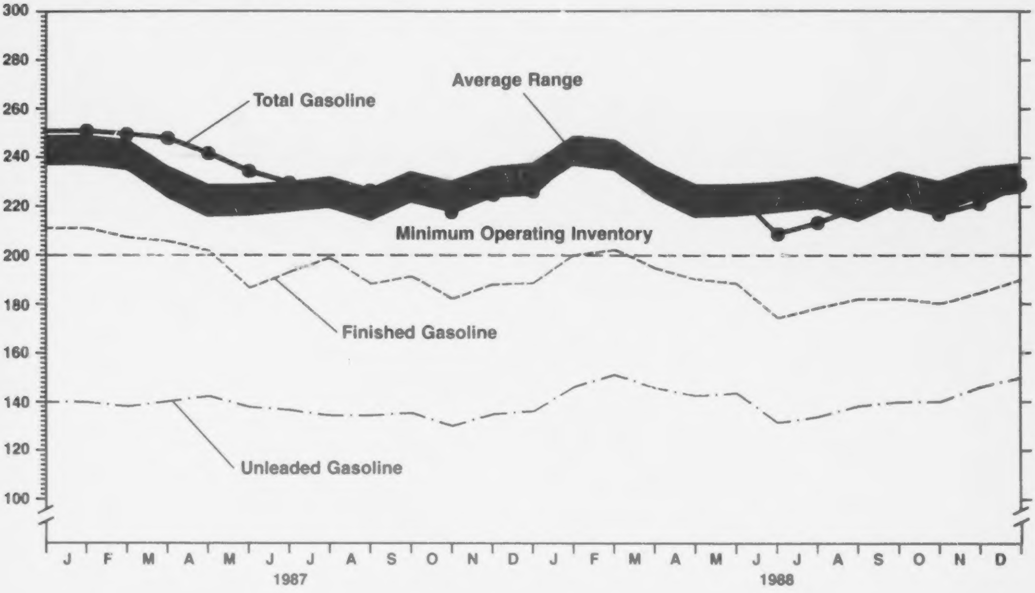


Crude Stocks at Primary Levels include those held at refineries, in pipelines, and in lease tanks, but do not include those held in the Strategic Petroleum Reserve operated by the U.S. Government. The average level and width of average range are based on three years of monthly data. The seasonal pattern is based on seven years of monthly data. National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. By its definition, runouts and shortages could occur if inventory levels fall below that level for any extended period of time.
Source: Department of Energy, Weekly Statistical Reports.

Stocks of Residual Fuel Oil, U.S. Total (Millions of bbl.)

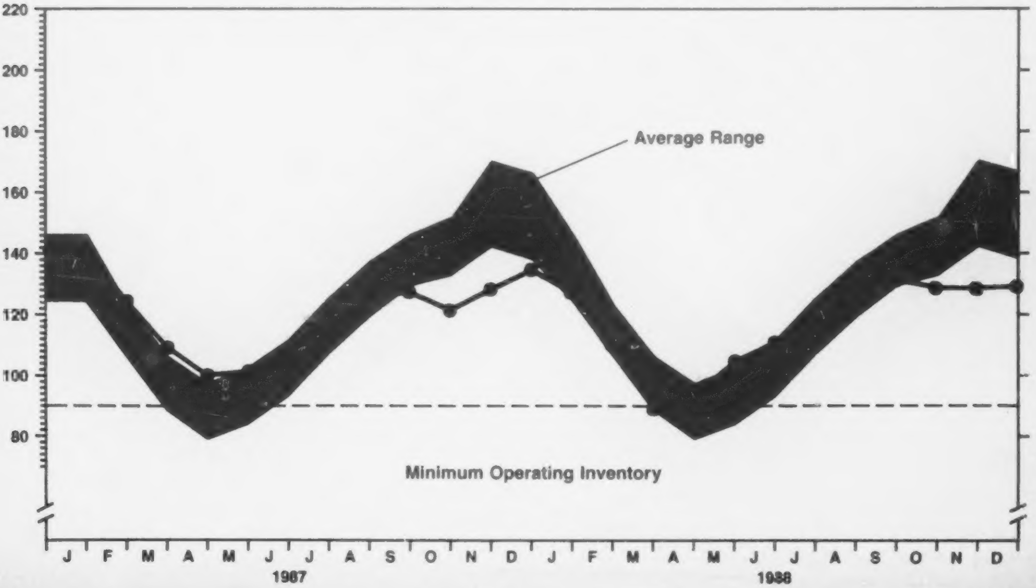


Stocks of Motor Gasoline, U.S. Total (Millions of bbl.)

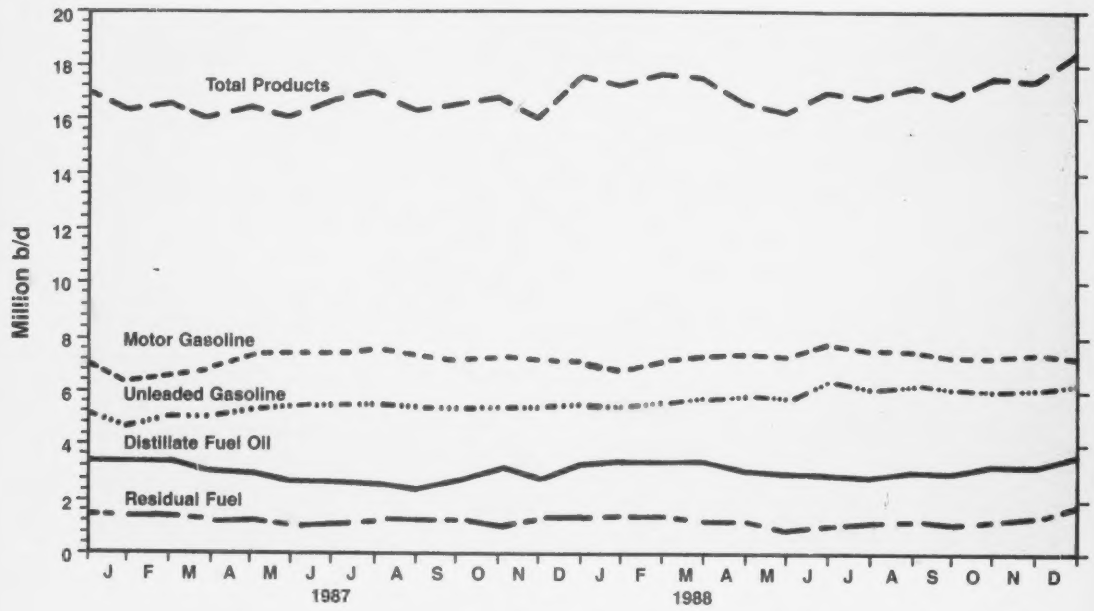


Product stocks at the Primary Level include those held at refineries, in pipelines, and at major bulk terminals. They do not include stocks held in secondary distribution facilities such as jobber tanks, consumer tanks, and/or barges designed for consumer markets. The average level and width of average range are based on three years of monthly data. The seasonal pattern is based on seven years of monthly data. National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. By its definition, runouts and shortages could occur if inventory levels fall below that level for any extended period of time.
Source: Energy Information Administration, Weekly Statistical Reports.

Stocks of Distillate Fuel Oil, U.S. Total (Millions of bbl.)



Domestic Product Supply Trends
(Million b/d)



Source: Energy Information Administration, Weekly Status Reports

Petroleum Products Supplied

(Millions of b/d)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1988												
Finished Motor Gasoline	6.7	7.0	7.3	7.4	7.3	7.8	7.5	7.5	7.3	7.3	7.4	7.3
Leaded	1.3	1.4	1.4	1.4	1.5	1.5	1.3	1.3	1.3	1.3	1.2	1.0
Unleaded	5.4	5.6	5.8	5.9	5.8	6.4	6.1	6.2	6.1	6.0	6.1	6.3
Jet Fuel	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.7
Distillate Fuel Oil	3.5	3.5	3.5	2.9	2.8	2.8	2.6	2.9	2.8	3.2	3.2	3.6
Residual Fuel Oil	1.6	1.6	1.4	1.3	0.9	1.1	1.2	1.3	1.1	1.3	1.5	1.8
Other	3.9	4.0	3.9	3.5	3.8	3.9	3.9	4.3	4.1	4.2	4.0	3.9
Total	17.2	17.6	17.5	16.4	16.1	17.1	16.6	17.4	16.8	17.5	17.4	18.3
1987												
Finished Motor Gasoline	6.5	6.8	7.0	7.3	7.5	7.5	7.6	7.3	7.2	7.3	7.2	7.3
Leaded	1.7	1.7	1.8	1.9	1.9	1.9	1.8	1.7	1.7	1.7	1.6	1.5
Unleaded	4.8	5.1	5.2	5.4	5.6	5.7	5.7	5.7	5.5	5.6	5.6	5.7
Jet Fuel	1.4	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.4	1.5
Distillate Fuel Oil	3.3	3.3	3.1	3.0	2.7	2.8	2.7	2.6	2.8	3.2	2.9	3.3
Residual Fuel Oil	1.5	1.5	1.2	1.2	1.0	1.2	1.3	1.2	1.3	1.1	1.2	1.4
Other	4.0	3.8	3.5	3.7	3.5	3.9	4.1	3.9	4.0	3.9	3.7	4.0
Total	16.7	16.9	16.2	16.5	16.0	16.8	17.1	16.3	16.7	16.9	16.3	17.4
1986												
Finished Motor Gasoline	6.5	6.5	7.0	7.1	7.1	7.2	7.4	7.4	6.9	7.3	6.9	7.1
Leaded	2.1	2.1	2.3	2.3	2.4	2.3	2.3	2.3	2.1	2.2	2.0	2.0
Unleaded	4.4	4.4	4.7	4.8	4.7	4.9	5.2	5.1	4.8	5.1	4.9	5.2
Jet Fuel	1.3	1.3	1.2	1.3	1.2	1.3	1.3	1.4	1.3	1.3	1.4	1.4
Distillate Fuel Oil	3.3	3.4	3.2	2.9	2.8	2.5	2.6	2.6	2.5	2.9	2.9	3.3
Residual Fuel Oil	1.4	1.5	1.4	1.4	1.3	1.4	1.5	1.5	1.3	1.3	1.4	1.6
Other	3.6	3.5	3.5	3.3	3.5	3.6	3.4	3.7	3.9	3.9	3.7	3.6
Total	16.1	16.2	16.3	15.9	16.0	16.0	16.3	16.6	15.9	16.6	16.2	17.1

Souce: Energy Information Administration, Weekly Status Reports.

Stocks of Motor Gasoline

(Add 000,000 bbl.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1988												
Finished Motor Gasoline	200.1	202.3	193.9	189.5	188.5	173.8	177.9	182.4	181.9	180.0	183.7	189.7
Leaded	54.3	51.7	48.9	47.2	45.1	42.9	44.5	44.5	42.1	38.6	38.1	40.1
Unleaded	145.8	150.7	145.0	142.3	143.3	130.8	133.5	137.8	139.9	141.4	145.6	149.6
Blending Components	39.4	38.3	37.3	36.4	37.2	35.2	35.8	36.2	38.6	37.3	37.4	38.6
Total Gasoline	89.5	240.7	231.3	226.0	225.6	209.0	213.8	218.6	220.6	217.3	221.1	228.2
East Coast	67.6	70.6	68.0	63.4	63.1	59.4	61.8	61.0	60.6	58.5	60.7	62.5
Midwest	63.2	66.2	66.2	62.8	63.3	54.9	55.6	60.6	61.2	58.4	58.4	59.8
Gulf Coast	68.6	64.6	60.8	62.0	62.5	61.3	62.9	63.2	61.1	63.2	64.4	64.9
Rocky Moutain	7.4	7.9	7.6	7.1	6.8	6.2	5.7	5.8	6.1	6.3	6.7	7.5
West Coast	32.6	31.4	28.7	30.6	29.9	27.2	27.8	28.0	31.5	30.8	30.9	33.5
1987												
Finished Motor Gasoline	210.6	206.6	205.0	201.0	195.9	192.6	188.9	188.0	191.2	181.8	188.1	188.8
Leaded	70.7	68.7	65.1	59.4	57.6	55.6	54.7	53.8	55.0	51.6	53.5	53.1
Unleaded	139.9	138.9	139.9	141.6	138.4	136.9	134.2	134.2	136.2	130.2	134.6	135.7
Blending Components	40.5	43.5	43.1	40.8	39.0	37.9	37.5	38.5	38.5	36.2	37.1	37.4
Total Gasoline	251.1	250.1	248.2	241.8	234.9	230.4	226.5	229.5	229.6	218.0	225.2	226.2
East Coast	74.3	68.5	69.0	68.9	65.5	66.7	69.5	67.0	64.4	59.9	63.1	63.0
Midwest	71.4	70.2	68.5	66.3	63.5	58.0	56.7	59.9	61.2	57.5	61.9	61.2
Gulf Coast	68.3	72.9	73.6	68.0	66.4	66.9	63.4	63.6	66.4	65.1	64.6	65.9
Rocky Mountain	8.0	8.5	8.4	8.0	7.4	6.1	5.4	5.7	6.1	5.7	6.1	6.8
West Coast	29.1	30.0	29.5	30.5	32.1	32.7	31.5	30.4	31.5	29.9	29.5	29.4

Stocks of Distillate Fuel Oil

(Add 000,000 bbl.)

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1988												
Total U.S.	127.1	109.6	89.3	94.3	104.4	110.7	119.4	125.2	131.0	127.9	128.7	123.5
East Coast	47.6	44.1	33.1	30.1	35.2	37.8	44.6	52.1	56.8	56.5	54.5	49.2
Midwest	34.3	29.8	23.3	26.5	28.8	29.6	30.5	31.0	30.4	28.6	29.2	31.3
Gulf Coast	31.5	23.1	21.5	24.4	25.3	27.3	28.9	28.3	28.7	28.7	29.8	28.2
Rocky Mountain	3.3	3.2	2.3	2.4	2.9	3.2	3.2	3.0	2.7	2.5	2.7	2.8
West Coast	10.4	9.4	9.2	10.8	12.2	12.7	12.3	10.9	12.3	11.5	12.4	12.0
1987												
Total U.S.	141.3	123.7	109.3	100.3	101.3	104.4	114.8	124.7	126.8	121.0	128.0	134.5
East Coast	65.3	48.8	41.5	36.1	34.6	37.1	44.8	50.5	52.4	53.4	52.1	53.8
Midwest	34.0	33.3	30.3	29.1	28.7	28.8	29.8	31.9	31.5	26.7	33.1	34.6
Gulf Coast	27.7	27.6	24.0	22.6	24.0	25.0	27.6	29.5	29.4	28.2	29.2	31.5
Rocky Mountain	3.2	3.3	3.1	2.7	2.7	2.5	2.5	2.6	2.6	2.3	2.6	3.1
West Coast	11.1	10.8	10.4	9.8	11.4	11.0	9.9	10.2	10.8	10.4	11.0	11.5

Stocks of Residual Fuel Oil

(Add 000,000 bbl.)

	Jan.	Feb.	Mar.	April	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.
1988												
Total U.S.	46.6	45.5	44.1	43.2	45.7	42.1	41.1	37.8	44.2	42.4	45.1	45.5
East Coast	19.6	19.6	17.7	16.1	18.1	16.4	16.5	14.9	19.3	17.6	18.7	18.8
Midwest	3.2	3.1	2.9	3.2	3.2	3.4	3.8	3.5	3.4	3.6	3.4	3.5
Gulf Coast	14.8	14.6	14.3	15.3	15.5	14.2	12.3	10.8	12.0	11.5	12.5	12.4
Rocky Mountain	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7
West Coast	8.6	7.8	8.9	8.2	8.4	7.7	8.0	8.0	9.0	9.1	9.9	9.2
1987												
Total U.S.	44.9	38.1	39.3	35.9	40.4	41.4	44.7	45.1	44.4	45.7	50.0	47.4
East Coast	21.5	17.4	16.7	15.6	17.9	19.2	19.8	21.3	21.2	21.2	23.0	23.1
Midwest	2.8	2.7	3.1	3.1	2.8	2.7	2.9	3.0	2.9	2.5	3.1	3.0
Gulf Coast	11.9	10.4	10.6	9.3	11.1	11.6	13.4	12.1	10.9	13.1	13.4	12.6
Rocky Mountain	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4
West Coast	8.4	7.4	8.6	7.5	8.2	7.4	8.3	8.9	9.0	8.4	10.0	8.3

Source: Energy Information Administration, Weekly Statistical Reports.

Refinery and Bulk Terminal Stocks By States and PAD Regions—1988

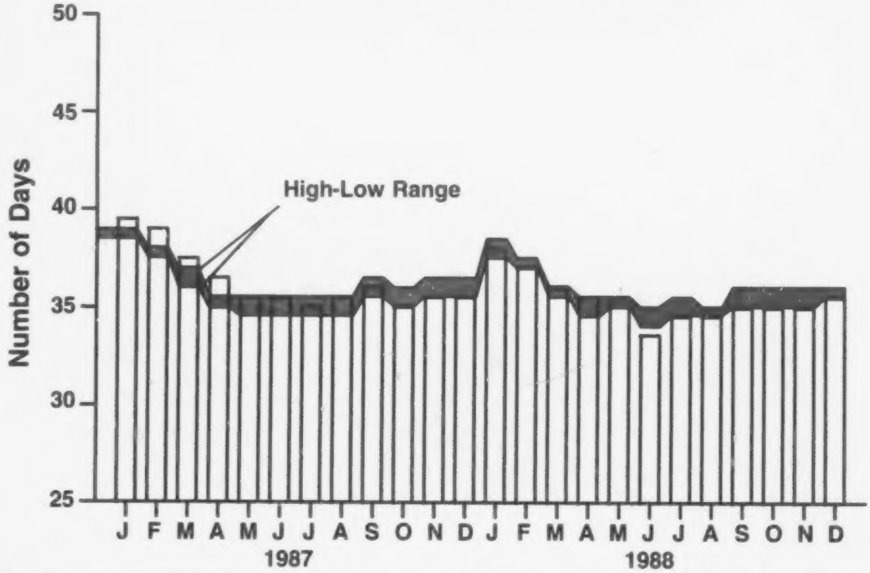
(Add 000 bbl.)

State	Leaded Gasoline	Unleaded Gasoline	Kerosine	Distillate	Residual
PAD District 1					
Connecticut	273	1,268	258	2,263	280
Delaware, D.C., Maryland	231	2,054	247	3,453	1,918
Florida	915	5,389	156	2,118	588
Georgia	783	1,910	124	1,407	141
Maine, New Hampshire, Vermont	132	984	187	2,234	734
Massachusetts	77	2,443	82	1,805	1,227
New Jersey	669	7,591	75	11,074	7,507
New York	721	3,653	396	5,545	3,595
North Carolina	635	1,953	327	1,418	541
Pennsylvania	881	4,908	519	5,322	1,445
Rhode Island	30	832	W	711	W
South Carolina	290	1,240	171	891	W
Virginia	453	2,937	119	2,336	338
West Virginia	68	219	W	147	W
TOTAL	**6,158**	**37,381**	**2,704**	**40,724**	**18,803**
PAD District 2					
Illinois	1,973	4,720	260	4,413	1,453
Indiana	1,144	4,218	216	3,120	495
Iowa	473	1,183	W	1,332	W
Kansas-Nebraska	1,117	2,063	43	2,151	57
Kentucky	448	1,139	53	943	W
Michigan	832	2,970	167	2,184	187
Minnesota	488	1,284	W	1,414	346
Missouri	494	1,042	W	864	W
North & South Dakota	263	491	W	715	W
Ohio	708	3,305	522	2,177	208
Oklahoma	974	1,203	W	1,697	233
Tennessee	475	1,350	66	1,130	205
Wisconsin	611	1,639	W	1,329	27
TOTAL	**10,000**	**26,607**	**1,730**	**23,469**	**3,478**
PAD District 3					
Alabama	406	1,118	95	737	682
Arkansas	193	336	W	202	W
Louisiana	1,233	4,483	405	5,083	4,799
Mississippi	660	2,078	29	1,883	W
New Mexico	218	256	W	267	4
Texas	3,691	15,034	663	11,127	6,686
TOTAL	**6,401**	**23,305**	**1,198**	**19,299**	**12,355**
PAD District 4					
Colorado	474	771	W	352	W
Idaho	183	253	W	245	W
Montana	478	472	W	566	115
Utah	233	311	W	472	139
Wyoming	352	563	W	636	W
TOTAL	**1,720**	**2,370**	**42**	**2,271**	**663**
PAD District 5					
Alaska	401	528	W	798	W
Arizona	240	412	W	214	W
California	3,906	10,530	86	6,463	4,658
Hawaii	112	511	W	563	W
Nevada	125	211	W	188	W
Oregon	697	733	W	885	221
Washington	1,387	2,264	W	1,541	2,053
TOTAL	**6,868**	**15,189**	**204**	**10,652**	**8,970**
U.S. Total	**31,147**	**104,852**	**5,878**	**96,415**	**44,269**

W = Withheld to avoid disclosure of individual company data.

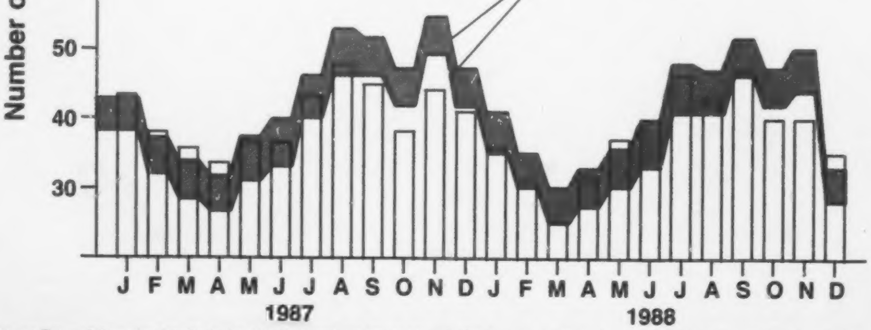
Source: Energy Information Administration, Petroleum Supply Monthly, Table 25, December 1988, published March 1989.

Gasoline Inventories Number of Days Supply



Source: Energy Information Administration, Weekly Petroleum Status Report. High-low range is based on lowest and highest values of past three years. Graph by NPN.

Distillate Inventories Number of Days Supply



Source: Energy Information Administration, Weekly Petroleum Status Report. High-low range is based on lowest and highest values of past three years. Graph by NPN.

U.S. Crude Oil Production — 1987-1978

(Thousands of b/d)

	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
PAD District 1										
Florida	22.7	25.7	31.4	39.6	53.4	70.2	95.3	117.2	129.2	130.2
New York	1.9	2.3	2.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Pennsylvania	9.0	10.4	13.3	11.7	11.7	11.7	10.2	7.2	7.9	7.9
Virginia	**	**	**	**	0.2	0.1	**	**	**	**
West Virginia	7.8	8.6	9.7	9.7	9.9	8.9	9.5	6.4	6.6	6.5
Total	**41.4**	**47.0**	**57.3**	**63.3**	**77.5**	**93.2**	**117.3**	**133.1**	**146.0**	**146.9**
PAD District 2										
Illinois	65.7	74.6	82.9	79.1	80.0	75.9	66.0	62.0	59.7	64.0
Indiana	10.2	13.0	14.2	15.1	14.6	15.2	12.9	13.6	12.9	12.8
Kansas	164.1	183.7	206.6	207.5	196.1	193.2	180.3	164.3	156.2	155.0
Kentucky	15.7	17.7	21.3	21.3	21.6	20.2	17.9	16.2	15.1	15.7
Michigan	71.2	70.4	74.8	83.7	86.9	86.2	89.5	97.8	95.5	95.0
Missouri	0.3	0.3	0.6	0.8	0.7	0.6	0.6	0.3	0.2	0.1
Nebraska	16.7	19.4	19.0	17.7	17.5	18.8	18.3	17.0	16.6	16.1
North Dakota	113.3	125.0	139.3	144.3	138.9	129.5	124.4	110.2	84.7	68.0
Ohio	33.3	36.8	41.1	41.8	41.0	39.9	37.1	35.3	32.8	30.6
Oklahoma	368.2	386.6	445.9	461.3	434.5	434.6	422.1	410.2	393.6	412.2
South Dakota	4.5	4.3	4.4	3.7	3.2	3.2	2.7	2.1	2.3	2.4
Tennessee	1.7	2.1	2.9	3.3	3.6	3.7	3.2	2.4	1.9	1.8
Total	**864.8**	**933.6**	**1,052.4**	**1,078.8**	**1,037.9**	**1,020.4**	**974.4**	**931.1**	**871.3**	**873.6**
PAD District 3										
Alabama	56.5	57.9	59.1	54.3	51.4	54.8	56.6	60.5	52.5	54.3
Arkansas	39.0	43.2	52.2	51.3	51.6	51.6	50.3	49.8	51.7	55.7
Louisiana	1,304.2	1,403.0	1,392.4	1,411.7	1,313.9	1,255.9	1,231.0	1,281.8	1,341.6	1,459.6
Mississippi	77.0	82.2	83.9	89.8	86.2	90.5	93.7	98.2	102.3	115.1
New Mexico	198.2	207.4	215.2	217.4	205.9	194.6	196.1	205.1	218.2	228.4
Texas	2,067.8	2,300.3	2,435.2	2,478.8	2,473.0	2,535.1	2,589.4	2,670.6	2,789.3	2,942.6
Total	**3,826.8**	**4,094.0**	**4,238.0**	**4,303.4**	**4,182.0**	**4,182.5**	**4,217.1**	**4,366.0**	**4,555.6**	**4,855.7**
PAD District 4										
Colorado	78.9	80.3	82.9	79.0	79.6	83.7	83.0	81.4	86.5	100.8
Montana	68.7	74.2	81.6	81.5	80.1	84.7	84.4	80.0	82.1	83.5
Utah	98.3	107.3	111.8	95.0	80.9	61.5	70.9	68.2	76.0	85.9
Wyoming	315.8	332.4	352.1	340.5	324.1	324.1	357.7	345.2	361.3	376.4
Total	**561.4**	**594.2**	**628.4**	**596.0**	**564.7**	**554.0**	**596.0**	**574.8**	**607.9**	**646.6**
PAD District 5										
Alaska	1,961.5	1,866.6	1,825.3	1,727.1	1,713.8	1,695.6	1,609.1	1,616.6	1,400.9	1,229.1
Arizona	0.4	0.4	0.5	0.6	0.6	0.9	1.0	1.1	1.3	1.1
California	998.9	1,114.2	1,161.3	1,128.8	1,108.7	1,100.2	1,054.7	975.2	965.1	951.2
Nevada	8.5	8.0	8.3	5.2	2.2	1.7	1.9	2.4	3.4	3.2
Total	**2,969.3**	**1,989.2**	**2,995.4**	**2,861.7**	**2,825.3**	**2,798.4**	**2,666.7**	**2,595.3**	**2,370.7**	**2,184.6**
Total U.S.	**8,263.8**	**8,680.1**	**8,972**	**8,903**	**8,688**	**8,648**	**8,571**	**8,600**	**8,551**	**8,707**

**Less than 100 barrels per day.

Source: American Petroleum Institute Data Book January 1989.

IPAA's New Outlook: Demand Strong, But Imports Could Exceed U.S. Crude Output

(Add 000 b d)

			1989 Forecast			
DEMAND	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1989 Average	1988-89 % Chg.
Domestic Products			(Add 000 b/d)			
Motor Gasoline	7,044	7,593	7,567	7,391	7,400	1.2%
Aviation Fuels	1,552	1,474	1,506	1,542	1,518	3.1
Middle Distillates	3,566	2,990	2,920	3,450	3,230	0.9
Residual Fuel Oil	1,516	1,228	1,279	1,476	1,374	3.4
Other Products	3,855	3,769	4,083	4,054	3,942	2.3
Domestic Demand	17,533	17,054	17,355	17,913	17,464	1.7
Total Exports	843	787	764	796	797	(2.7)
TOTAL DEMAND	**18,376**	**17,841**	**18,119**	**18,709**	**18,261**	**1.5**

SUPPLY

Domestic Production						
Crude Oil	7,856	7,731	7,823	7,792	7,800	(4.0)
Natural Gas Liquids	1,624	1,592	1,571	1,601	1,597	(1.4)
Total Production	**9,480**	**9,323**	**9,394**	**9,393**	**9,397**	**(3.6)**
Imports						
Motor Gasoline	436	526	550	475	497	12.7
Aviation Fuels	123	101	100	95	105	19.3
Middle Distillates	377	238	267	360	310	4.7
Residuel Fuel Oil	726	500	525	689	610	3.2
Other Products	728	734	792	954	802	13.8
Total Products	2,390	2,099	2,234	2,573	2,324	9.6
Crude Oil Imports	5,235	5,661	6,048	5,987	5,736	15.1
Total Imports	7,625	7,760	8,282	8,560	8,060	13.5
Other Supply	898	939	898	804	885	(16.8)
TOTAL SUPPLY	**18,003**	**18,022**	**18,574**	**18,757**	**18,342**	**2.4**
Refinery Inputs	13,461	13,909	14,322	14,258	13,991	5.2

CLOSING STOCKS (millions of bbl.)

Motor Gasoline	232.3	215.0	215.4	225.5	225.5	(1.2)
Aviation Fuels	45.9	46.9	46.3	47.8	47.8	4.4
Middle Distillates	103.0	110.8	136.8	139.9	139.9	7.0
Residual Fuel Oil	42.2	41.5	43.7	45.7	45.7	2.7
Other Products	255.4	282.8	285.4	266.3	266.3	2.6
Total Products	678.8	697.0	727.6	725.2	725.2	2.3
Crude Oil Stocks	327.7	326.0	337.3	344.1	344.1	3.9
TOTAL STOCKS	**1,006.5**	**1,023.0**	**1,064.9**	**1,069.3**	**1,069.3**	**2.8**

Source IPAA Supply and Demand Committee May 1989

The new industry outlook for petroleumn supply and demand, released in May by the Independent Petroleum Assn. of America, sounds an ominous note with respect to U.S. energy security. According to IPAA's latest forecast, annual petroleum imports are expected to exceed domestic crude oil production for the first time since 1977.

U.S. crude output is projected to decline for the fourth consecutive year, a drop of 4% to an average of only 7.0-million b/d, IPAA says. With demand increasing to the highest level (17.5-million b/d) since 1979, however, total U.S. supply will rise 13.5% to an average of 8.1-million b/d. Domestic petroleum imports are forecast to reach 44% of total U.S. supply this year, up 4% from 1987. "The U.S. is rapidly approaching over dependence on imported oil," IPAA concludes.

Domestic Supply Trend

(Add 000,000 bbl.)

Year	All products	Gasoline	Kerosine(a)	Distillate	Residual	LPG	Lubes	Other
1988(b)	6,261	2,670	481	1,132	487	631	58	802
1987	6,083	2,630	465	1,086	461	588	59	794
1986	5,943	2,576	439	1,064	518	555	52	739
1985	5,740	2,493	404	1,047	439	584	53	720
1984	5,756	2,449	391	1,041	501	576	57	741
1983	5,585	2,417	353	982	519	551	53	710
1982	5,568	2,386	339	977	618	443	51	754
1981	5,861	2,404	342	1,032	762	407	56	858
1980	6,932	2,536	397	1,389	1,033	414	58	1,105
1975	5,958	2,436	347	1,041	899	362	50	823
1970	5,364	2,131	358	927	804	363	50	731
1965	4,202	1,720	220	776	587	307	47	545
1960	3,610	1,512	132	685	559	227	43	427

(a) Kerosine includes jet fuel; (b) Preliminary.
Source: Petroleum Supply Monthly, Energy Information Administration, 1988.

U.S. Estimated Petroleum Balance

(Add 000 b/d)

	Full year			4th Quarter			Third Quarter			2nd Quarter		
Petroleum Products Supplied From Primary Storage (a)	1988	1987	% Chng.	1988	1987	% Chng.	1988	1987	% Chng.	1988	1987	% Chng.
Products Supplied:												
Motor gasoline, total	7,320	7,206	1.6%	7,355	7,237	1.6%	7,397	7,377	0.3%	7,446	7,438	0.1%
Finished leaded gasoline	1,331	1,736	(23.3)	1,173	1,590	(26.2)	1,302	1,731	(24.8)	1,416	1,887	(25.0)
Finished unleaded gasoline	5,989	5,470	9.5	6,182	5,647	9.5	6,095	5,646	8.0	6,030	5,551	8.6
Naphtha-jet	211	204	3.4	216	200	8.0	215	221	(2.7)	212	207	2.4
Kerosine-jet	1,243	1,181	5.2	1,310	1,231	6.4	1,196	1,168	2.4	1,144	1,130	1.2
Distillate fuel oil	3,093	2,977	3.9	3,266	3,136	4.1	2,784	2,700	3.1	2,795	2,820	(0.9)
Residual fuel oil	1,330	1,264	5.2	1,496	1,236	21.0	1,167	1,270	(8.1)	1,191	1,138	1.2
All other oils	4,175	4,071	2.6	4,432	4,147	6.9	4,226	4,225	0.0	3,828	3,935	(2.7)
Reclassified	(17.4)	(238)	(26.9)	(179)	(270)	(33.7)	(160)	(251)	(36.3)	(200)	(212)	(5.7)
Total domestic products supplied	17,198	16,665	3.2	17,896	16,917	5.8	16,825	16,710	0.7	16,416	16,456	(0.2)
Exports	796	764	4.2	730	814	(10.3)	864	712	21.4	764	734	4.1
Total Products Supplied	17,994	17,429	3.2	18,626	17,731	5.0	17,689	17,422	1.5	17,180	17,190	(0.1)
Supply:												
Domestic production												
Crude oil	8,111	8,349	(2.9)	7,982	8,359	(4.5)	8,045	8,222	(2.2)	8,207	8,371	(2.0)
Natural gas liquids	1,621	1,595	1.6	1,655	1,620	2.2	1,608	1,578	1.9	1,604	1,584	1.3
Other supply	1,010	841	20.1	826	782	5.6	1,077	836	28.8	1,042	882	18.1
Total domestic supply	10,742	10,785	(0.4)	10,463	10,761	(2.8)	10,730	10,636	0.9	10,853	10,837	0.1
Imports:												
Crude oil, total (b)	5,034	4,601	9.4	5,371	4,857	10.6	5,057	5,239	(3.5)	5,132	4,354	17.9
Canadian	677	608	11.3	658	599	9.8	653	632	3.3	697	656	6.3
Other	4,357	3,993	9.1	4,713	4,258	10.7	4,404	4,607	(4.4)	4,435	3,698	19.9
Products, total	2,158	2,004	7.7	2,491	2,058	21.0	1,940	2,102	(7.7)	1,905	1,824	4.4
Residual Fuel oil	593	565	5.0	744	544	36.8	498	587	(15.2)	451	487	(7.4)
Other	1,565	1,439	8.8	1,747	1,514	15.4	1,442	1,515	(4.8)	1,454	1,337	8.8
Total imports	7,192	6,605	8.9	7,862	6,915	13.7	6,997	7,341	(4.7)	7,037	6,178	13.9
Total supply	17,934	17,390	3.1	18,325	17,676	3.7	17,727	17,977	(1.4)	17,890	17,015	5.1

(a) 1988 data are preliminary; (b) Does not include SPR imports or reserves.
Source: American Petroleum Institute, Monthly Statistical Reports, 1988.

U.S. Refinery Operations

(Add 000 b/d)

	Full Year			4th Quarter			3rd Quarter			2nd Quarter		
U.S. Refinery Operations (a)	1988	1987	% Chng.	1988	1987	% Chng.	1988	1987	% Chng.	1988	1987	% Chng.
Input to crude distillation units	13,427	13,003	3.3	13,337	13,118	1.7	13,780	13,491	2.1	13,580	12,929	5.0
Operable capacity	15,919	15,643	1.8	15,929	15,808	0.8	15,929	15,631	1.9	15,965	15,573	2.5
Refinery utilization (%)	83.3	83.1	1.4	83.7	83.0	0.8	86.5	86.3	0.2	85.1	83.0	2.5
Crude oil runs	13,281	12,854	3.3	13,213	12,975	1.8	13,641	13,328	2.3	13,387	12,787	4.7

(a) Preliminary for 1988.
Source: American Petroleum Institute, Monthly Statistical Reports, 1988.

Crude Oil and Product Inventories

(Add 000,000 bbl.)

	4th Quarter			3rd Quarter			2nd Quarter			1st Quarter		
Stocks	1988	1987	% Chng.	1988	1987	% Chng.	1988	1987	% Chng.	1988	1987	% Chng.
Crude oil (a)	332.8	349.0	(4.6)	324.0	337.2	(3.9)	358.8	327.6	9.5	344.7	333.4	3.4
Unfinished oils	98.8	93.2	6.0	108.2	103.0	5.1	111.6	102.4	9.0	101.4	107.6	(5.8)
Total motor gasoline(b)	228.8	226.2	1.1	221.3	229.6	(3.6)	209.7	230.4	(9.0)	229.9	249.2	(7.7)
Finished leaded gasoline	40.7	53.1	(23.4)	41.5	55.0	(24.6)	42.7	55.6	(23.2)	48.5	65.3	(25.7)
Finished unleaded gasoline	148.9	135.7	9.7	141.3	136.2	3.7	132.1	136.9	(3.5)	144.4	140.5	2.8
Naphtha-jet	6.3	8.0	(21.2)	6.6	6.5	1.5	6.7	7.3	(8.2)	6.7	6.7	—
Kerosine-jet	37.6	42.0	(10.5)	41.5	43.7	(5.0)	38.8	38.7	0.3	38.9	41.4	(6.0)
Distillate fuel oil	127.0	134.5	(5.6)	129.9	126.8	2.4	111.3	104.4	6.6	91.6	110.0	(16.7)
Residual fuel oil	44.4	47.4	(6.3)	44.3	44.4	(0.2)	41.1	41.4	(0.7)	42.1	39.6	6.3
All other oils	169.4	166.5	1.7	188.3	180.6	4.3	199.8	168.6	18.5	165.6	152.5	8.6
Total all oils	1,045.1	1,066.8	(2.0)	1,064.1	1,071.8	(0.7)	1,077.8	1,020.8	5.6	1,020.9	1,040.4	(1.9)

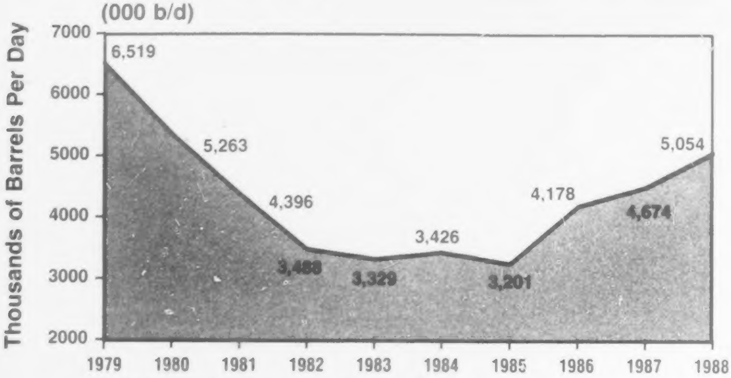
(a) Does not include Strategic Petroleum Reserve; (b) Total includes leaded and unleaded and blending components.

Petroleum Product Consumption—1987

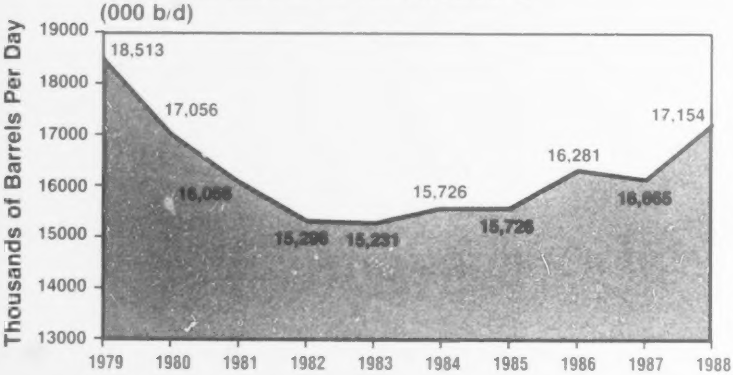
(Add 000 bbl.)

	Motor Gasoline	Aviation Fuels	Middle Distillates (a)	Residual Fuel Oil	Asphalt	Propane	All Other (b)	Total Products
Alabama	45,821	3,086	20,834	2,002	5,015	3,072	12,359	92,189
Alaska	5,866	15,119	7,328	11,586	264	217	6,252	46,632
Arizona	37,872	5,859	8,716	9	2,561	960	8,666	64,643
Arkansas	28,459	939	12,906	97	1,046	3,207	7,223	53,877
California	317,257	76,967	82,662	49,462	16,914	11,180	85,840	640,282
Colorado	39,118	8,008	9,904	281	3,197	2,656	9,779	72,943
Connecticut	31,714	1,589	13,311	24,806	2,198	1,156	11,577	86,351
Delaware	6,549	5,110	4,321	1,543	627	1,268	3,006	22,424
~~Dist. of~~ Columbia	3,927	0	3,001	367	271	0	1,171	8,737
Florida	137,148	19,962	32,650	35,629	8,262	7,267	37,299	278,217
Georgia	76,881	17,254	23,122	2,424	6,501	5,364	20,366	151,912
Hawaii	7,869	8,883	2,993	14,947	408	436	5,502	41,038
Idaho	10,652	452	5,033	21	513	441	2,649	19,761
Illinois	96,755	1,536	29,230	2,552	6,490	7,253	22,266	166,082
Indiana	58,340	17,765	28,900	1,541	7,810	4,430	18,391	137,177
Iowa	32,427	657	16,430	17	1,838	4,448	8,642	64,459
Kansas	55,490	3,595	27,583	706	2,686	23,919	17,646	131,625
Kentucky	42,985	4,219	20,133	392	2,776	3,070	11,391	84,966
Louisiana	63,182	25,091	43,711	32,520	2,338	11,371	27,591	205,804
Maine	13,739	632	7,221	10,530	948	517	6,200	38,787
Maryland	43,862	2,367	18,274	36,073	5,043	1,566	16,595	123,780
Massachusetts	59,305	7,127	46,468	1,600	1,520	9,131	19,376	144,527
Michigan	97,689	6,389	23,122	1,600	3,883	9,131	21,956	163,770
Minnesota	45,702	6,726	16,928	993	6,022	4,547	12,528	93,446
Mississippi	35,799	6,382	21,048	639	2,234	8,661	11,575	86,338
Missouri	58,789	6,758	17,412	776	4,472	4,391	14,336	106,934
Montana	11,146	1,850	5,890	115	1,814	1,189	3,407	25,411
Nebraska	17,630	856	11,585	10	1,276	2,429	5,229	39,015
Nevada	14,299	3,939	6,160	210	888	711	4,057	30,264
New Hampshire	7,391	156	8,162	1,894	801	929	2,993	22,326
New Jersey	99,754	39,400	73,040	32,792	5,751	2,855	39,262	292,854
New Mexico	18,509	1,317	8,835	114	2,126	4,823	5,531	41,255
New York	118,538	2,539	56,692	54,420	7,095	5,046	37,828	282,158
North Carolina	76,698	5,189	30,056	6,544	4,407	6,015	19,958	148,867
North Dakota	8,362	427	6,980	245	976	3,032	3,100	23,122
Ohio	105,839	10,404	38,737	1,870	10,024	4,685	26,561	198,120
Oklahoma	50,427	6,758	18,494	999	2,805	5,919	13,222	98,624
Oregon	31,510	2,543	15,926	2,358	2,200	1,225	8,633	64,395
Pennsylvania	112,646	9,545	54,576	21,280	7,240	5,496	32,634	243,417
Rhode Island	12,986	594	7,976	2,565	1,938	389	4,092	30,540
South Carolina	37,433	796	12,513	2,800	2,660	2,992	9,165	68,359
South Dakota	8,719	1,013	5,305	2	693	951	2,583	19,266
Tennessee	64,997	5,077	27,443	421	5,105	2,486	16,338	121,867
Texas	304,142	92,323	132,089	33,923	12,950	76,497	100,932	752,856
Utah	18,866	4,717	7,589	642	1,468	1,119	5,326	39,727
Vermont	2,752	26	2,113	276	537	511	962	7,177
Virginia	66,434	10,834	30,366	9,522	4,832	2,373	19,254	143,615
Washington	54,136	16,103	24,984	9,816	2,331	1,993	16,932	126,295
West Virginia	15,077	194	7,002	958	551	288	3,727	27,797
Wisconsin	48,264	1,156	20,169	231	2,462	3,831	11,784	87,897
Wyoming	7,297	245	8,034	407	1,510	3,009	3,174	23,676
TOTAL U.S.	**2,767,044**	**470,473**	**1,163,959**	**422,832**	**180,279**	**262,668**	**815,487**	**6,082,742**

(a) Middle distillates include kerosine; (b) All other includes naphtha, lubricants, waxes, petroleum coke and still gas.
Source: Independent Petroleum Assn. of America, "The Oil and Gas Producing Industry in Your State," 1988.



CRUDE OIL IMPORTS (000 b/d)



DOMESTIC SUPPLY OF OIL PRODUCTS (000 b/d)

Source: Department of Energy

Unleaded Gasoline: The Growth by Years

(Add 000 b/d)

	Total Gasoline Consumption	Unleaded Gasoline Consumption	Unleaded Percent of total
1988 Average	**7,314**	**5,980**	**81.8%**
January	6,679	5,392	80.7
February	7,004	5,571	79.5
March	7,265	5,845	80.4
April	7,384	5,946	80.5
May	7,269	5,813	80.0
June	7,838	6,356	81.1
July	7,473	6,126	82.0
August	7,511	6,191	82.4
September	7,349	6,056	82.5
October	7,287	5,992	82.2
November	7,369	6,149	83.4
December	7,342	6,306	85.9
1987 Average	**7,206**	**5,470**	**75.9**
January	6,535	4,822	73.8
February	6,796	5,068	74.6
March	6,964	5,193	74.6
April	7,314	5,405	73.9
May	7,460	5,569	74.7
June	7,539	5,678	75.3
July	7,581	5,740	75.7
August	7,338	5,656	77.1
September	7,205	5,536	76.8
October	7,305	5,636	77.1
November	7,151	5,589	78.2
December	7,251	5,715	78.8
1986 Avg.	**7,034**	**4,854**	**69.0**
1985 Avg.	**6,831**	**4,406**	**64.5**
1983 Avg.	**6,622**	**3,647**	**55.1**
1981 Avg.	**6,588**	**3,264**	**49.5**
1979 Avg.	**7,034**	**2,798**	**30.8**
1977(a) Avg.	**7,177**	**1,976**	**27.5**

(a) Unleaded was mandated in July, 1977.
Source: Energy Information Administration, Petroleum Supply Monthly. December issue published in March.

Supply and Demand, Principal Products (Add 000 bbl.)

	Motor Gasoline	Aviation Gasoline	Distillate Fuel Oil	Residual Fuel Oil	Jet Fuel (a)	Lubricants	Asphalt
Domestic Supply							
1988(b)	2,696,610	9,809	1,132,230	486,910	524,733	58,638	178,726
1987	2,630,190	9,041	1,086,240	461,360	505,520	58,694	170,285
Production							
1988(b)	2,536,385	9,208	1,045,360	337,625	491,484	62,653	167,511
1987	2,365,565	9,073	996,815	323,025	490,082	60,870	158,434
Imports							
1988(b)	142,350	157	102,100	218,270	102,416	3,645	11,438
1987	140,160	103	93,075	206,225	24,497	5,254	13,271

(a) Includes Naphtha and Kerosine-based fuels; (b) Preliminary including some estimates by NPN.

U.S. Oil Imports (a) (Add 000 b/d)

Year	Crude Oil	Other Products	Residual Fuel Oil	Total Imports	% of Total U.S. Supply
1988(b)	5,054	1,542	598	7,194	41.9%
1987	4,674	1,439	565	6,678	40.0
1986	4,178	1,376	669	6,223	38.2

(a) Does not include Strategic Petroleum Reserve; (b) Preliminary.
Source: Energy Information Administration, Petroleum Supply Monthly.

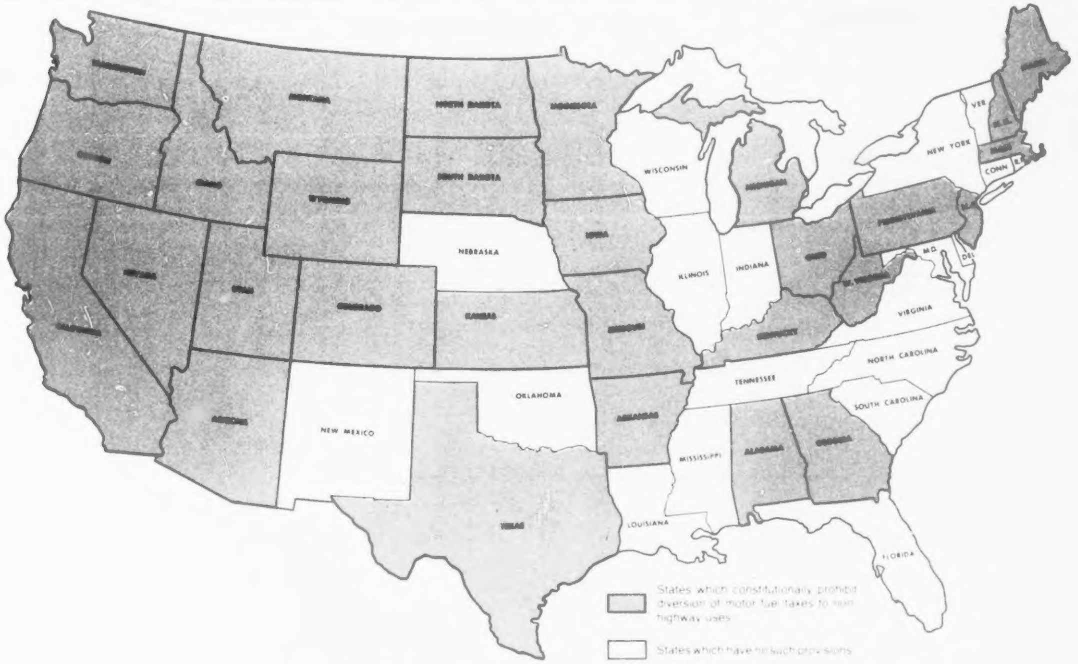
Origins of U.S. Oil Imports

	OPEC Sources		Arab OPEC		Hemispheres	
	000 b/d	% of total imports	000 b/d	% of total imports	Western 000 b/d	Eastern 000 b/d
1988(a)	3,716	51.7%	1,376	19.1%	3,422	4,350
1987	3,060	45.8	1,274	19.1	3,076	3,602
1986	2,387	38.2	1,162	18.7	2,914	3,137

(a) Preliminary.
Source: Energy Information Administration, Petroleum Supply Monthly.

	Total Well Completions			Proved Reserves (a)				Supply (Add 000 b/d)	
Year	Total	Dry	%Dry	Crude Oil (b)	Crude Production/ Reserve Ratio	Natural Gas (c)	Natural Gas Production/ Reserve Ratio	Domestic Crude & Natl. Gas Lqds.	Crude & Product Imports
1988(d)	31,168	9,874	31.7%	27,256	9.5	186.7	9.0	9,815	7,193
1987	34,927	11,292	32.3	26,889	9.0	191.6	9.0	10,080	6,678
1986	38,870	12,415	31.9	28,416	9.3	193.4	8.7	10,289	6,224

(a) As of Jan. 1 of each year; (b)Millions of bbl.; (c) Trillions of cubic feet; (d) Preliminary.
Source: American Petroleum Institute, Basic Data Book, Vol. IX, No. 1 (usually published January each year).


WISCONSIN
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VIRGINIA
NORTH CAROLINA
TENNESSEE
OKLAHOMA
SOUTH CAROLINA
NEW MEXICO
MISSISSIPPI
LOUISIANA
FLORIDA
States which constitutionally prohibit diversion of motor fuel taxes to non-highway uses
States which have no such provisions

State Motor Fuel Tax Collections

State	State Gasoline tax rates per gal. in 1988	Total State motor fuel tax revenues(a) (Add 000)		% Change
		1988	1987	
Alabama	13¢	$336,328	$313,507	7.3
Alaska	8	19,338	19,537	-1.0
Arizona	16	309,249	315,429	-2.0
Arkansas	13.5	204,075	203,491	0.3
California	9	1,284,984	1,229,983	4.5
Colorado	18	313,314	295,729	5.9
Connecticut	20	321,707	262,652	21.5
Delaware	16	63,078	51,983	21.3
Dist.ofCol.	15.5	31,046	26,063	19.1
Florida	9.7	702,144	677,321	3.7
Georgia	11	40,484	40,459	0.1
Hawaii	7.5	322,908	314,287	2.7
Idaho	18	96,024	79,216	21.2
Illinois	13	740,335	686,288	7.9
Indiana	15	487,981	517,203	5.7
Iowa	18	295,208	256,945	14.9
Kansas	11	184,156	164,387	12.0
Kentucky	15	339,242	314,183	8.0
Louisiana	16	362,203	366,576	-1.2
Maine	16	118,059	95,251	23.9
Maryland	18.5	440,468	396,650	11.0
Massachusetts	11	306,055	302,157	1.3
Michigan	15	705,450	657,522	7.3
Minnesota	20	447,941	360,672	24.2
Mississippi	17	281,010	142,808	96.8
Missouri	11	357,850	274,286	30.5
Montana	20	107,321	91,442	17.4
Nebraska	18.3	175,148	162,073	8.1
Nevada	18	123,110	99,751	23.4
New Hampshire	14	89,521	87,671	2.1

State	State Gasoline tax rates per gal. in 1987	Total State motor fuel tax revenue(a) (Add 000)		% Change
		1988	1987	
New Jersey	8	404,746	347,482	16.5
New Mexico	14	146,120	120,936	20.8
New York	8	538,990	513,756	4.9
North Carolina	15.7	660,425	598,056	10.4
North Dakota	17	83,308	62,714	32.8
Ohio	14.8	848,126	626,504	35.4
Oklahoma	16	300,851	256,068	17.5
Oregon	14	171,562	159,219	7.8
Pennsylvania	12	997,953	937,291	6.5
Rhode Island	15	65,400	62,535	4.6
South Carolina	15	313,791	285,368	10.0
South Dakota	18	81,369	60,929	33.5
Tennessee	17	540,524	495,635	9.1
Texas	15	1,512,150	1,399,360	8.1
Utah	19	168,394	144,763	16.3
Vermont	13	43,100	41,697	3.4
Virginia	17.5	631,550	553,085	14.2
Washington	18	447,120	418,705	6.8
West Virginia	10.5	103,530	106,023	-2.4
Wisconsin	20.9	503,521	442,177	13.9
Wyoming	8	41,549	36,989	12.3
Total	-	**$18,209,8156**	**$16,474,814**	**10.5%**
& change from prior year		**10.5%**	**10.3%**	

(a) Estimated for 1988. Both 1988 and 1987 totals include some miscellaneous "other receipts," however. These are smallish amounts. The bulk of the taxes herein are for gasoline. The totals do NOT include diesel fuel or LPG taxes.

Source: Federal Highway Administration, Table SS87-2, published October 1988.

State and Federal Gasoline Taxes—1988

(¢ per gal.)

	State gasoline tax rate	State gasohol tax rate	State diesel tax rate	State sales or special taxes*	State + 9.0¢ Federal tax
Alabama	13.0	13.0	14.0	—	22.0
Alaska	8.0	0.0	8.0	—	17.0
Arizona	17.0	17.0	17.0	—	26.0
Arkansas	13.5	13.5	12.5	—	22.5
California	9.0	9.0	9.0	yes	18.0
Colorado	18.0	18.0	20.5	—	27.0
Connecticut	20.0	19.0	20.0	yes	29.0
Delaware	16.0	16.0	16.0	—	25.0
Dist. of Col.	15.5	15.5	15.5	—	24.5
Florida	9.7	9.7	9.7	—	18.7
Georgia	7.5	7.5	7.5	yes	16.1
Hawaii	11.0	11.0	11.0	yes	20.0
Idaho	18.0	14.0	18.0	—	27.0
Illinois	13.0	13.0	15.5	yes	22.0
Indiana	15.0	15.0	16.0	yes	24.0
Iowa	20.0	17.0	22.5	—	29.0
Kansas	11.0	11.0	13.0	—	20.0
Kentucky	15.0	15.0	12.0	—	24.0
Louisiana	16.0	16.0	16.0	—	25.0
Maine	15.0	15.0	19.0	—	24.0
Maryland	18.5	18.5	18.5	—	27.5
Massachusetts	11.0	11.0	11.0	—	20.0
Michigan	15.0	15.0	15.0	yes	24.0
Minnesota	20.0	18.0	20.0	—	29.0
Mississippi	18.0	18.0	18.0	yes	27.0
Missouri	11.0	11.0	11.0	—	20.0
Montana	20.0	20.0	20.0	—	29.0
Nebraska	18.2	15.2	18.2	—	27.2
Nevada	18.0	18.0	20.0	—	27.0
New Hampshire	14.0	14.0	14.0	—	23.0
New Jersey	10.5	4.5	13.5	—	19.5
New Mexico	14.2	6.2	16.2	—	23.2
New York	8.0	8.0	10.0	yes	17.0
North Carolina	15.7	15.7	15.7	—	24.7
North Dakota	17.0	13.0	17.0	—	26.0
Ohio	14.8	14.8	14.8	—	23.8
Oklahoma	16.0	16.0	13.0	—	25.0
Oregon	16.0	16.0	16.0	—	25.0
Pennsylvania	12.0	12.0	12.0	yes	21.0
Rhode Island	15.0	15.0	15.0	yes	24.0
South Carolina	16.0	10.0	16.0	—	25.0
South Dakota	18.0	16.0	18.0	—	27.0
Tennessee	17.0	13.0	16.0	—	26.0
Texas	15.0	11.0	15.0	—	24.0
Utah	19.0	19.0	19.0	—	28.0
Vermont	13.0	13.0	14.0	—	22.0
Virginia	17.5	17.5	16.0	yes	26.5
Washington	18.0	16.2	18.0	—	27.0
West Virginia	15.4	15.4	15.4	—	24.4
Wisconsin	20.9	20.0	20.9	—	29.9
Wyoming	8.0	8.0	8.0	—	17.0

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* California: 4.75% sales tax; Connecticut: 2% oil company gross receipts tax; Georgia: 3% tax on retail price; Hawaii: 4% sales tax; Illinois: 6% sales tax; Indiana: 5% sales tax; Michigan: 4% sales tax; Mississippi: 6% sales tax; New York: 4% sales tax and 2.75% of gross receipts from sale of petroleum products; Pennsylvania: 6% franchise tax on gross receipts; Rhode Island: 2% of gross earnings of oil companies; Virginia: 3% of average wholesale price of taxable petroleum products.

Source: National Highway Users Federation, as of 12/31/88.

Net Gasoline Revenues by States (a)

(Thousands of Dollars)

State	1988	1987	1986	1985	1980	State + 9.0¢ Federal Tax on gasoline (a)
Alabama	$269,710	$269,040	$252,869	$245,035	$172,922	22.0¢
Alaska	19,280	19,360	21,258	24,144	26,175	17.0
Arizona	305,280	314,240	294,210	229,543	118,158	25.0
Arkansas	204,075	198,430	197,101	169,804	113,166	22.5
California	1,281,780	1,258,470	1,200,981	1,140,251	854,185	18.0
Colorado	313,220	253,050	244,666	185,088	113,442	27.0
Connecticut	317,265	282,780	238,322	212,053	153,155	29.0
Delaware	63,040	52,920	41,878	39,5[illegible]2	29,319	25.0
Dist.ofCol.	31,000	28,210	25,169	24,753	37,576	24.5
Florida	666,487	631,368	592,452	552,407	417,133	18.7
Georgia	318,450	307,425	293,307	278,403	330,485	16.5
Hawaii	40,480	41,250	39,132	32,609	34,778	20.0
Idaho	95,928	79,895	77,252	78,086	52,793	27.0
Illinois	740,335	726,510	672,139	639,106	388,097	22.0
Indiana	487,885	523,900	512,623	416,034	255,149	24.0
Iowa	294,325	259,925	244,149	193,556	167,463	27.0
Kansas	183,990	162,120	153,857	150,421	118,937	20.0
Kentucky	338,700	307,440	239,069	191,457	187,446	24.0
Louisiana	361,120	368,480	341,887	351,109	188,281	25.0
Maine	117,976	103,180	88,333	85,350	51,652	25.0
Maryland	421,905	378,465	309,172	290,548	186,658	27.5
Massachusetts	305,140	296,120	281,257	285,988	212,035	20.0
Michigan	705,450	683,700	648,462	625,063	473,593	24.0
Minnesota	446,690	359,380	341,399	340,704	204,955	29.0
Mississippi	272,340	174,640	136,846	129,522	127,647	26.0
Missouri	356,070	297,440	215,445	208,208	203,177	20.0
Montana	107,000	91,945	80,177	78,966	51,089	29.0
Nebraska	175,148	163,472	152,691	129,180	104,331	27.3
Nevada	122,620	95,700	78,993	71,662	34,625	27.0
New Hampshire	80,360	78,120	71,115	66,231	48,046	23.0
New Jersey	392,958	308,930	349,050	312,791	288,764	17.0
New Mexico	146,120	127,025	103,709	98,149	69,999	23.0
New York	538,990	526,320	499,707	491,730	474,498	17.0
North Carolina	641,813	572,260	488,511	405,450	295,143	24.7
North Dakota	76,500	56,940	48,648	52,242	33,488	26.0
Ohio	848,126	745,690	604,960	549,637	393,133	23.8
Oklahoma	300,250	210,200	202,212	194,567	129,545	25.0
Oregon	171,220	151,800	141,149	125,967	92,880	23.0
Pennsylvania	992,001	393,160	920,233	892,469	575,891	21.0
Rhode Island	65,400	63,450	55,315	48,403	39,260	24.0
South Carolina	308,850	264,880	254,450	247,003	173,412	24.0
South Dakota	80,325	57,330	51,921	51,406	41,809	27.0
Tennessee	501,880	467,880	391 857	294,541	226,785	26.0
Texas	1,512,150	1,463,400	1,002,272	990,886	480,946	24.0
Utah	167,390	157,886	113,435	112,265	74,074	28.0
Vermont	43,100	39,660	39,004	37,949	21,745	22.0
Virginia	631,235	572,090	441,740	400,424	275,141	26.5
Washington	447,120	430,200	406,527	399,635	254,637	27.0
West Virginia	103,530	93,975	102,883	100,947	101,467	19.5
Wisconsin	503,521	440,181	403,094	374,029	198,684	29.9
Wyoming	39,760	31,680	35,319	34,278	37,576	17.0
Total U.S.	**$17,955,288**	**$16,527,912**	**$14,742,487**	**$13,683,250**	**$9,736,915**	**$23.2¢**
% Change VS Preceding Period	**12.1%**	**7.7%**	**40.5%**	**17.0%**	**32.1%**	**(Avg.)**

(a) Does not include sales and special taxes levied in some states and municipal areas; does not include "other receipts" from gasoline sales.

Sources: Federal highway Administration, Table SS87-2, published October 1988; data for 1988 are estimates.

Auto, Truck and Farm Tire Shipments

Type of Tire (Add 000)

	Passenger	% of Market	Bus/ Truck	% of Market	Farm Equipment	% of Market	Total of Market Type	% of Total
1988								
Original Equipment	54,131	84.6%	8,801	13.8%	753	1.2%	63,685	23.7%
Replacement	155,292	80.9	33,918	17.7	2,662	1.4	191,872	71.5
Export	9,365	72.4	3,301	25.5	267	2.1	12,933	4.8
Total	**218,788**	**81.5**	**46,020**	**17.1**	**3,682**	**1.4**	**268,490**	—
1987								
Original Equipment	52,913	86.2%	7,845	12.8%	595	1.0%	61,353	23.7%
Replacement	151,892	80.3	34,514	18.3	2,658	1.4	189,064	73.1
Export	5,987	72.3	2,069	25.0	226	2.7	8,282	3.2
Total	**210,792**	**81.5**	**44,428**	**17.2**	**3,479**	**1.3**	**258,699**	—

Source: Rubber Manufacturers Assn., Monthly Statistical Report, December, 1988

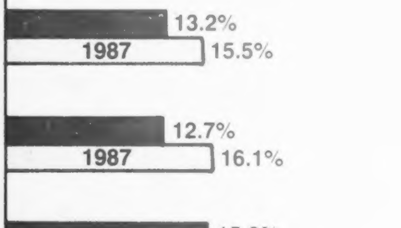
'88 Shipments Edge Up Again

The tire market has been described as flat by many sources, but the latest data from the Rubber Manufacturers Assn. shows total tire shipments increased by a fairly healthy 3.8% in 1988. The growth in replacement shipments, however, slowed down somewhat last year compared to the impressive 5.6% gain in 1987.

'88 vs. '87	Passenger	Bus/ Truck	Farm Equipment	Total by Type of Market
Original equipment	2.3%	12.2%	26.6%	3.8%
Replacement	2.2	(1.7)	0.1	1.5
Export	56.4	59.5	18.0	56.2
Total	**3.8**	**3.6**	**5.8**	**3.8**

Source: Rubber Manufacturers Assn., Monthly Statistical Report

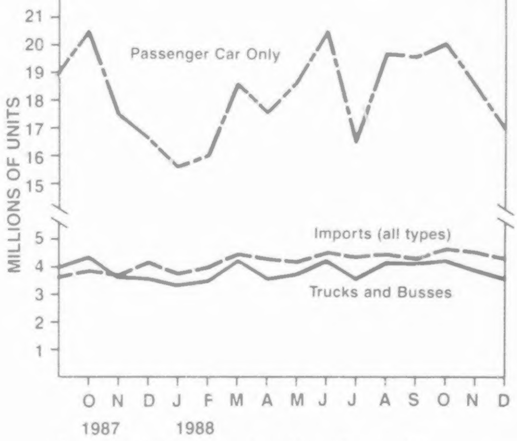
Where Consumers Get Tune-ups



Source: Champion Spark Plug Co.

N.B. Because the questionnaires were revised and the categories were changed in 1987, the data in this chart are not comparable to prior Factbook issues.

Tire Shipments and Import Trends



Source: Rubber Manufacturers Assn., Monthly Reports, 1988

1986 Ethylene Glycol-Base Antifreeze Sales

(Add 000 gal.)

	Civilian	Government
Packaged ethylene glycol antifreeze sold in quart and gallon sizes	112,152,391	-0-
in drums	9,720,813	(*)
Total	**121,873,204**	**(*)**
Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to packagers	55,506,903	1,824,428
Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to motor vehicle manufacturers for "drive-away" or factory fill use	13,055,115	-0-
Total	**190,435,222**	**1,824,428**
Grand total (civ. and gov't.)		**192,259,650**

Source: Chemical Specialty Mfrs. Assn.

New Record for Battery Shipments in 1988

Battery shipments (replacement and original equipment) rose by almost 4-million units in 1988, an increase of 5.5% over the 1987 shipments. The new total of 74.7-million units shipped also set an all-time record for the industry. Replacement batteries accounted for the lion's share of the increased volume, moving from 59.9-million units in 1987 to 63.5-million batteries shipped last year. This gave replacements 85% of the battery market, the best market share since 1982. Original equipment battery shipments were up from 10.9-million to 11.2-million in 1988.

(Add 000)

Year	Replacements	% of Market	New cars & trucks	% of Market	Total market	% Change from previous year
1988	63,487	85.0%	11,190	15.0%	74,677	5.5
1987	59,878	84.6	10,910	15.4	70,788	−1.1
1986	60,306	84.2	11,335	15.8	71,641	+1.8
1985	58,684	83.4	11,649	16.6	70,333	—
1984	59,333	84.5	10,925	15.5	70,258	5.0
1983	56,105	83.8	10,823	16.2	66,928	7.9
1982	54,214	87.4	7,819	12.6	62,033	0.8
1981	53,598	87.1	7,956	12.9	61,554	6.0
1980	50,063	86.2	8,009	13.8	58,072	−11.0
1979	53,746	82.4	11,480	17.6	66,226	−6.2
1977	54,601	81.2	12,639	18.8	67,240	10.8
1975	42,582	82.5	8,985	17.6	51,567	−5.3
1970	37,389	81.9	8,239	18.1	45,629	0.5

Source: Replacement battery figures supplied by Battery Council International. New cars and trucks are U.S. factory sales figures provided by Motor Vehicle Manufacturers Assn.

Replacement Batteries

Replacement battery shipments totaled 63.5-million units in 1988, with 12-volt and 6-volt accounting for 87% of the total, according to Battery Council International. Here are the highlights of its annual report.

Replacement Batteries:

Passenger cars and light trucks:

12-volt: 49,564,532, or 78.1% of the total; 6-volt: 772,370, or 1.2% of the total.

Heavy duty commercial:

12-volt: 3,500,972, or 5.5% of the total; 6-volt: 1,487,282, or 2.3% of the total.

Original Equipment:

Passenger cars and light trucks:

12-volt: 11,496,135, or 1.8% of the total; 6-volt: 10,854, or 0.02% of the total.

Heavy duty commercial:

12-volt: 881,397 or 1.4% of the total; 6-volt: 75,394 or 0.1% of the total.

Car Lubrication Service

1989 Crankcase Drain Intervals and Recommended Oil

		Normal Service		Severe Service		
Make	Model	Miles	Months	Miles	Months	Type Of Oil
Eagle	Medallion	7,500	7.5	—	—	SF/CC
	Premier	7,500	7.5	—	—	SG SG/CD
Chrysler Corp.	Turbo	7,500(a)	6(a)	3,000	3	SG SG/CD
	Others	7,500	12	5,000	6	
Ford Motor Co.	Supercharged	5,000	6	3,000	3	SG
	Others	7,500	6	3,000	3	
General Motors	Turbo	3,000	3	3,000	3	SF/CC SF/CD
	Others	7,500	12	3,000	3	SG

(a) Change oil every 3,000 miles or 3 months if SG/CD oil is not used.

Source: Chek-Chart Publications, Simon & Schuster Inc.

1989 Automatic Transmission/Transaxle Drain Intervals and Recommended Fluids

		Normal Service		Severe Service	
Make	Fluid	Months	Miles	Months	Miles
Eagle	MERCON®	30	30,000	—	—
Chrysler Corp.	Dexron®-II(a)	—	—	—	15,000
Ford Motor Co.	MERCON®	—	—	—	30,000
General Motors	Dexron®-II	—	100,000	—	15,000

(a) ATF+ or Type 7176 fluid is preferred.

1989 Chassis Lubrication Intervals

	Normal Service		Severe Service			
Make	Months	Miles	Months	Miles	Type	Part or Specification No.
Eagle	—	—	—	—	—	—
Chrysler Corp.	36	30,000	18	15,000	#2 Barium EP	4318063
Ford Motor Co. (a)	—	15,000	—	—	#2 Lithium EP with polyethylene 8-molybdenum disulfide	M1C75-B
General Motors (b)	12	7,500	6	6,000	#1-2 Multipurpose EP	1050679

(a) Crown Victoria, Grand Marquis, Mustang only.
(b) Not required for GM-10 and 4WD A body models.

Source: Chek-Chart Publications, Simon & Schuster Inc.

U.S. Refineries and Capacities by States

(Crude Oil Capacity on Jan. 1, 1988)

(* after number indicates capacity shut down but capable of being placed in operation within 90 days.)

Company	b/d
ALABAMA	
Belcher Oil Co.	
Chickasaw	26,600
GAMXX Energy Inc.	
(Formerly Marion Corp.)	
Theodore	27,000
Hunt Oil Co.	
Tuscaloosa	33,500
LL&E Petroleum Marketing	
Saraland	80,000
Vulcan Refining Co.	
Cordova	9,500
Warrior Asphalt Refining Corp.	
Holt	4,000
Total	180,600
ALASKA	
Arco Alaska Inc.	
Anchorage	12,000
Prudhoe Bay	20,000
Chevron U.S.A. Inc.	
Kenai	22,000
Mapco Petroleum Inc.	
North Pole	90,000
Petro Star	
North Pole	6,700
Tesoro Petroleum Corp.	
Kenai	72,000
Total	222,700
ARKANSAS	
Berry Petroleum Co.	
Stephens	3,700
Cross Oil & Refining Co. of Arkansas	
Smackover	6,700
Lion Oil Co.	
El Dorado	41,000
	7,000*
Total	51,400
	7,000*
CALIFORNIA	
Arco Petroleum Products Co.	
Carson	214,000
Chevron U.S.A. Inc.	
El Segundo	390,000
	15,000*
Richmond	270,000
	80,000*
Conoco Inc.	
Santa Maria	9,500
Edgington Oil Co. Inc.	
Long Beach	41,600
Exxon Co.U.S.A.	
Benicia	126,000
Fletcher Oil & Refining Co.	
Carson	29,500
Gibson Oil & Refining Co. Inc.	
Bakersfield	0
	9,600*
Golden West Refining Co.	
Santa Fe Springs	42,000
Huntway Refining Co.	
Benicia	8,600
Wilmington	5,500
Kern Oil & Refining Co.	
Bakersfield	21,400
Lunday Thagard Co.	
South Gate	8,100
Macmillan Petroleum Co.	
Signall Hill	14,000
Mobil Oil Corp.	
Torrance	123,000
Newhall Refining Co. Inc.	
Newhall	22,500
Oxnard Refinery	
Oxnard	4,000
Pacific Refining Co. Inc.	
Hercules	55,000
Paramount Petroleum Corp.	
Paramount	46,500
Powerine Oil Co.	
Santa Fe Springs	35,000
San Joaquin Refining Co. Inc.	
Bakersfield	14,300
	10,000*
Shell Oil Co.	
Carson	112,000
Martinez	140,100
Sunland Refining Corp.	
Bakersfield	12,000
Texaco Refining & Marketing Inc.	
Bakersfield	41,000
Wilmington	57,000
Tosco Corp.	
Martinez	126,000
Union Pacific Resources Co.	
(Formerly Champlin Petroleum Co.)	
Wilmington	65,000
Unocal Corp.	
Arroyo Grande	41,000
Rodeo	77,000
Wilmington	108,000
West Coast Oil Co.	
Oildale	5,000*
Witco Corp.	
Oildale	0
Total	2,259,600
	119,600*
COLORADO	
Colorado Refining Co.	
(Formerly Asamera Oil (US) Inc.)	
Commerce City	33,500
Conoco Inc.	
Commerce City	43,000
Total	76,500
DELAWARE	
Texaco Refining & Marketing Inc.	
Delaware City	140,000
Total	140,000
FLORIDA	
Seminole Refining Corp.	
St. Marks	0
	17,000*
Total	0
	17,000*
GEORGIA	
Amoco Oil Co.	
Savannah	0
	28,000*
Young Refining Corp.	
Douglasville	5,655
Total	5,655
	28,000*
HAWAII	
Chevron U.S.A. Inc.	
Honolulu	48,000
Hawaiian Independent Refinery Inc.	
Ewa Beach	67,900
Total	115,900
ILLINOIS	
Clark Oil & Refining Corp.	
Blue Island	E 64,600
Hartford.E	63,600
Marathon Petroleum Co.	
Robinson	120,000
	75,000*
Mobil Oil Corp.	
Joliet	180,000
Motor Oils Refining Co.	
McCook	1,500
Shell Oil Co.	
Wood River	274,000
Unocal Corp.	
Lemont	151,000
Total	854,700
	75,000*
INDIANA	
Amoco Oil Co.	
Whiting	350,000
Indiana Farm Bureau Cooperative Assn.	
Mount Vernon	21,200
Kentucky Oil & Refining Co.	
Troy	0
	E 1,000*
Laketon Refining Corp.	
Laketon	8,700
Rock Island Refining Corp.	
Indianapolis	43,000

Company	b/d
Total	422,900
	E 1,000*
KANSAS	
Augusta Refining Co.	
Augusta	0
Derby Refining Co.	
El Dorado	0
	30,400*
Wichita	28,800
Farmland Industries Inc.	
Coffeyville	56,500
Phillipsburg	26,400
National Cooperative Refinery Assn.	
McPherson	75,600
Texaco Refining & Marketing Inc.	
El Dorado	81,500
Total Petroleum Inc.	
Arkansas City	53,600
Total	322,400
	30,400*
KENTUCKY	
Ashland Oil Inc.	
Catlettsburg	213,400
Kentucky Oil & Refining Co.	
Betsy Lane	0
	600*
Somerset Refinery Inc.	
Somerset	5,500
Total	218,900
	600*
LOUISIANA	
Calcasieu Refining Co.	
Lake Charles	13,500
Calumet Refining Co.	
Princeton	4,207
Canal Refining Co.	
Church Point	8,000
Citgo Petroleum Corp.	
Lake Charles	297,000
	23,000*
Claiborne Gasoline Co.	
Lisbon	7,500
Conoco Inc.	
Egan	2,800
Westlake	156,500
Exxon Co. U.S.A.	
Baton Rouge	455,000
Hill Petroleum Co.	
Krotz Springs	56,000
St. Rose	34,700
Kerr-McGee Refining Corp.	
Cotton Valley	7,800
Dubach	10,000
Marathon Petroleum Co.	
Garyville	255,000
Murphy Oil U.S.A. Inc.	
Meraux	78,500
	14,000*
OGC Corp.	
(Formerly Louisiana Oil Refg. Co. of Egan)	
Egan	0
	5,000*
Pennzoil Products Co.	
Shreveport	46,200
Placid Refining Co.	
Port Allen	46,000
Shell Oil Co.	
Norco	215,000
Standard Oil Co.	
Belle Chasse	198,500
Tenneco Oil Co.	
Chalmette	145,000
Texaco Refining & Marketing Inc.	
Convent	225,000
Texas NAPCO Inc.	
St. James	0
	17,000*
Trans America Refining Co.	
Good Hope	0
	300,000*
Total	2,262,207
	359,000*
MICHIGAN	
Crystal Refining Co.	
Carson City	3,000
Marathon Petroleum Co.	
Detroit	68,500
Total Petroleum Inc.	
Alma	42,000
Total	113,500
MINNESOTA	
Ashland Oil Inc.	
St. Paul	67,143
Koch Refining Co.	
St. Paul	155,000
Total	222,143
MISSISSIPPI	
Amerada Hess Corp.	
Purvis	30,000
Chevron U.S.A. Inc.	
Pascagoula	295,000
Ergon Inc.	
Vicksburg	20,600
Petro Source Resources Inc.	
(Formerly Vicksburg Refining Inc.)	
Vicksburg	6,000
Southland Oil Co.	
Lumberton	5,800
Sandersville	11,000
Total	368,400
MONTANA	
Cenex	
Laurel	33,650
	7,800*
Conoco Inc.	
Billings	48,500
Exxon Co. U.S.A.	
Billings	42,000
Flying J Petroleum Inc.	
Cutbank	0
	5,600*
Montana Refining Co.	
Great Falls	6,300
Total	130,450
	13,400*
NEVADA	
Nevada Refining Co.	
Tonopah	4,500
Total	4,500
NEW JERSEY	
Amerada Hess Corp.	
Port Reading	0
Chevron U.S.A. Inc.	
Perth Amboy	80,000
Coastal Eagle Point Oil Co.	
Westville	90,000
Exxon Co. U.S.A.	
Linden	120,000
Mobil Oil Corp.	
Paulsboro	100,000
Seaview Petroleum Inc.	
Paulsboro	44,400
Total	434,400
NEW MEXICO	
Bloomfield Refining Co.	
Bloomfield	16,800
Giant Refining Co.	
Gallup	18,000
Navajo Refining Co.	
Artesia	34,700
Thriftway Co.	
Bloomfield	6,100
Total	75,600
NEW YORK	
Cibro Petroleum Products Inc.	
Albany	41,850
Total	41,850
NORTH CAROLINA	
City Gas & Transmission Corp.	
Wilmington	0
	10,000*
GNC Energy Corp.	
Greensboro	3,000
Total	3,000
	10,000*
NORTH DAKOTA	
Amoco Oil Co.	
Mandan	58,000
Total	58,000
OHIO	
Ashland Oil Inc.	
Canton	66,000
Standard Oil Co.	
Lima	171,000
Toledo	126,100
Sun Co. Inc.	
Toledo	125,000
Total	488,100
OKLAHOMA	
Barrett Refining Corp.	
Thomas	10,500
Conoco Inc.	
Ponca City	134,000
Kerr-McGee Refining Corp.	
Wynnewood	43,000
Sinclair Oil Corp.	
Tulsa	47,000
Sun Co. Inc.	
Tulsa	85,000
Total Petroleum Inc.	
Ardmore	62,000
Total	381,500
OREGON	
Chevron U.S.A. Inc.	
Willbridge	0
Total	0

PENNSYLVANIA

Company	b/d
Atlantic Refining & Marketing Corp.	
Philadelphia	125,000
BP Oil Corp.	
Marcus Hook	172,000
Chevron U.S.A. Inc.	
Philadelphia	174,100
Pennzoil Products Co.	
Rouseville	15,700
Quaker State Oil Refining Corp.	
Smethport	6,700
Sun Co. Inc.	
Marcus Hook	165,000
United Refining Co.	
Warren	60,000
Witco Corp.	
Bradford	8,500
Total	727,000

TENNESSEE

Company	b/d
Mapco Petroleum Inc.	
Memphis	60,000
Total	60,000

TEXAS

Company	b/d
Amber Refining Inc.	
Fort Worth	0
	19,700*
Amoco Oil Co.	
Texas City	400,000
Champlin Refining Co.	
Corpus Christi	155,200
Chevron U.S.A. Inc.	
El Paso	66,000
	10,000*
Port Arthur	328,500
	78,400*
Coastal Refining & Marketing Inc.	
Corpus Christi	90,000
Crown Central Petroleum Corp.	
Pasadena	100,000
Diamond Shamrock Refining & Marketing Co.	
Sunray	100,000
Three Rivers	45,000
Donna Refinery Partners Ltd.	
(Formerly Listo Petroleum Co.)	
Donna	0
	4,750*
El Paso Refining Co. Ltd.	
El Paso	21,600
Exxon Co. U.S.A.	
Baytown	426,000
	67,000*
Fina Oil & Chemical Co.	
Big Springs	55,000
Port Arthur	90,000
Hill Petroleum Co.	
Houston	65,000
Howell Hydrocarbons Corp.	
San Antonio	4,500
Koch Refining Co.	
Corpus Christi	125,000
La Gloria Oil & Gas Co.	
Tyler	46,000
Leal Petroleum Corp.	
Nixon	15,900]
	5,000*
Liquid Energy Corp.	
Bridgeport	0
	10,000*
Lyondell Petrochemical Co.	
Houston	260,000
Marathon Petroleum Co.	
Texas City	69,500
Mobil Oil Corp.	
Beaumont	275,000
Petrolite Corp.	
Kilgore	1,000
Phillips 66 Co.	
Borger	105,000
Sweeny	175,000
Pride Refining Inc.	
Abilene	28,500
	14,250*
Shell Oil Co.	
Deer Park	214,000
Odessa	28,600
South Hampton Refining Co.	
Silsbee	0
Southwestern Refining Co. Inc.	
Corpus Christi	104,000
Texaco Refining & Marketing Inc.	
Port Arthur/Port Neches	250,000
Texas City Refining Inc.	
Texas City	119,600
Trifinery	
Corpus Christi	0
	27,000*
Unocal Corp.	
Nederland	120,000
Valero Refining Co.	
Corpus Christi	19,000
Total	3,902,900
	236,100*

UTAH

Company	b/d
Amoco Oil Co.	
Salt Lake City	40,000
Big West Oil Co.	
North Salt Lake	24,000
Chevron U.S.A. Inc.	
Salt Lake City	45,000
Crysen Refining Inc.	
Woods Cross	12,500
Pennzoil Products Co.	
(Formerly Seagull Refining Co.)	
Roosevelt	8,000
Phillips 66 Co.	
Woods Cross	25,000
Total	154,500

VIRGINIA

Company	b/d
Amoco Oil Co.	
Yorktown	51,000
Primary Oil & Energy Corp.	
Chester	2,400
Total	53,400

WASHINGTON

Company	b/d
Arco Petroleum Products Co.	
Ferndale	162,000
Chevron U.S.A. Inc.	
Richmond Beach	0
Mobil Oil Corp.	
Ferndale	77,000
Shell Oil Co.	
Anacortes	82,000
Sound Refining Inc.	
Tacoma	11,900
Texaco Refining & Marketing Inc.	
Anacortes	87,000
U.S. Oil & Refining Co.	
Tacoma	32,000
Total	451,900

WEST VIRGINIA

Company	b/d
Mid Atlantic Fuels Inc.	
(Formerly Quaker State Oil Refining Corp.)	
St. Mary's	4,658
Quaker State Oil Refining Corp.	
Newell	12,150
Total	16,808

WISCONSIN

Company	b/d
Murphy Oil U.S.A. Inc.	
Superior	32,000
Total	32,000

WYOMING

Company	b/d
Amoco Oil Co.	
Casper	40,000
Frontier Refining Co.	
Cheyenne	33,500
Little America Refining Co.	
Evansville	24,500
Mountaineer Refining Co. Inc.	
La Barge	0
	350*
Sinclair Oil Corp.	
Sinclair	54,000
Wyoming Refining Co.	
Newcastle	12,555
Total	164,555
	350*

GUAM

Company	b/d
Guam Oil & Refining Co. Inc.	
Agana	0
	43,900*
Total	0
	43,900*

PUERTO RICO

Company	b/d
Carribean Gulf Refining Corp.	
(Formerly Chevron U.S.A. Inc.)	
San Juan	36,000
Phillips Puerto Rico Core Inc.	
Guayama	0
Sun Co. Inc.	
Yabucoa	85,000
Total	121,000

VIRGIN ISLANDS

Company	b/d
Amerada Hess Corp.	
St. Croix	470,000
	75,000*
Total	470,000
	75,000*

E=Estimated.

Source: Petroleum Supply Annual, 1987, Energy Information Administration.

Lubrication Oil and Wax Capacities of U.S. Refineries

(All capacities in 000 b/d) as of Jan. 1, 1989

			Finished Lube Capacity					Wax Capacity	
Company	Location	Crude Capacity	A	B	C	D	Total	E	F
Amoco Oil Co.	Caspar, Wyo.	40.0	1.5				1.5		0.3
Amoco Oil Co.	Whiting, Ind.	350.0	6.2				6.2	0.6	
Ashland Oil, Inc.	Catlettsburg, Ky.	205.0	6.8				6.8		2.0
BP America	Lima, Ohio	178.0	2.4				2.4		0.6
Calumet Refining Co.	Burnham, Ill.					0.6	0.6		
Calumet Refining Co.	Princeton, La.	4.4				3.2	3.2		
Chevron U.S.A. Inc.	Port Arthur, Tex.	329.0	6.1	0.6	2.0	0.1	9.7		0.3
Chevron U.S.A. Inc.	Richmond, Calif.	270.0			2.3		10.8	1.2	1.0
Cit-Con Oil Corp.	Lake Charles, La.		9.1				9.1	1.2	0.5
Conoco Inc.	Ponca City, Okla.	134.0	2.3				2.3	0.3	
Diamond Shamrock	Three Rivers, Tex.	45.0					1.4		
Ergon, Inc. (Lion Oil Co. Affiliate)	El Dorado, Arkansas	50.0					1.0		
Ergon Refining, Inc.	Vicksburg, Mississippi	17.0					3.0		
Exxon Co., U.S.A.	Baton Rouge, La.	455.0	16.0	0.5			16.5	1.5	
Exxon Co., U.S.A.	Baytown, Tex.	494.0	18.0		9.0		31.2		1.8
Farmland Industries, Inc.	Coffeyville, Kans.	56.5							
Lyondell Petrochemical Co.	Houston, Tex.	260.0					7.0		0.4
Mid-Atlantic Fuels Supply	St. Mary's West Virginia	4.9							
Mobil Oil Corp.	Beaumont, Tex.	275.0	8.9				8.9	1.6	0.3
Mobil Oil Corp.	Paulsboro, N.J.	100.0	7.5				7.5		
Moore & Munger Marketing and Refining, Inc.	Smackover, Arkansas	7.0					4.0		
Pennzoil Co.	Rouseville, Pa.	15.7					4.4	0.6	0.4
Pennzoil Co./Atlas Processing Co.	Shreveport, La.	46.2	3.1				7.8	1.0	
Petrolite Corp.	Barnsdall, Okla.							0.4	
Petrolite Corp., Bareco Div.	Kilgore, Tex.	1.0							0.3
Quaker State Oil Ref. Corp.	Emlenton, Pa.							0.7	
Quaker State Oil Ref. Corp.	Farmers Valley, Pa.	6.5	1.7				1.7	0.4	0.5
Quaker State Oil Ref. Corp.	Newell, W.V.	10.5					3.6		0.5
San Joaquin Refining Co., Inc.	Bakersfield, Calfinornia	21.0			2.4	0.5	2.9		
Shell Oil Co.	Deer Park, Tex.	215.9	4.6				9.6	1.2	
Shell Oil Co.	Martinez, Calif.	140.1			3.8		3.8		
Shell Oil Co.	Wood River, Ill.	274.0	5.0				5.0		
Star Enterprises (Formerly Texaco U.S.A.)	Port Arthur, Texas	250.0	15.7		1.0		16.7		1.8
Sun Company, Inc.	Marcus Hook, Pa.	170.0				4.0	10.0		
Sun Company, Inc.	Tulsa, Okla.	85.0	7.5				7.5	0.8	
Sun Company, Inc.	Yabucoa, Puerto Rico	85.0					8.8		2.1
Unocal	Nederland, Tex.	74.2	3.1				3.1	0.1	0.3
Unocal	Rodeo, Calif.	77.0	4.6				4.6	0.7	1.2
Witco Chemical Corp.	Bradford, Pa.	10.0	1.6	0.9			2.5	0.2	
Witco Chemical Corp.	Oildale, Calif.	11.0			2.7	1.5	5.1		
	TOTAL:	**4766.9**	**131.7**	**2.0**	**21.2**	**6.7**	**230.2**	**12.3**	**15.2**

Canadian Refineries

Company	Location	Crude Capacity	A	B	C	D	Total	E	F
Esso Petroleum Canada	Sarnia, Ontario	126.0	4.6		0.7		5.3	0.5	1.8
Esso Petroleum Canada	Strathcona, Alberta	157.0					2.8		0.7
International Waxes, Ltd.	Agincourt, Ontario						1.0		
Petro-Canada Products	Clarkson, Ontario	41.5					4.9		1.0
Shell Canada, Ltd.	Montreal East, Quebec	31.0	3.4				3.4		0.9
	TOTAL:	**355.5**	**8.0**		**0.7**		**16.4**	**0.5**	**4.4**

Definitions: A-Solvent extracted paraffinic lubes; B-Unextracted paraffinic lubes; C-Solvent extracted naphthanic lubes; D-Unextracted unhydrotreated naphthanic lubes; E-Fully refinshed crude scale and microcrystalline waxes; F-Semi-finished, slack waxes and petrolatums.
Source: National Petroleum Refiners Assn., Lubricationg Oil and Wax Capacities, 1987.

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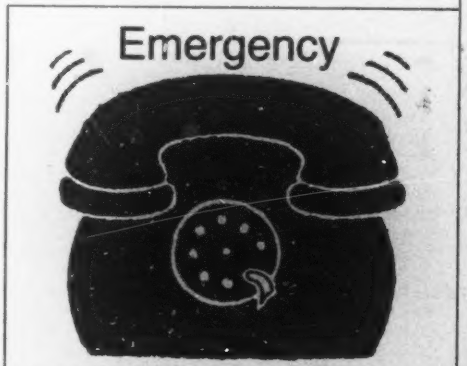

U.S. Refineries and Capacities by Companies

(in descending order as of Jan. 1, 1988)

Important note: This listing includes capacity that is operational and capacity that is idle or shut down. In the latter case, this capacity can be restored to normal within 90 days. The Energy Information Administration says there were 213 operable refineries on Jan. 1, 1988, compared with a total of 219 the preceding year. The crude distillation capacity was 15.9-million b/d, compared with the year ago figure of 15.6-million b/d. For earlier data, see 1988 NPN Factbook.

Companies with a capacity of more than 100,000-b/d. Number of companies: 32; Total capacity: 13,870,043-b/d.

Company	b/d
Chevron U.S.A. Inc.	
Port Arthur, Texas	406,900
El Segundo, Calif.	405,000
Richmond, Calif.	350,000
Pascagoula, Miss.	295,000
Philadelphia, Pa.	174,100
Perth Amboy, N.J.	80,000
El Paso, Texas	76.000
Honolulu, Hawaii	48,000
Salt Lake City, Utah	45,000
Kenai, Alaska	22,000
Total	**1,902,000**
Exxon Co. U.S.A.	
Baytown, Texas	493,000
Baton Rouge, La.	455,000
Benicia, Calif.	126,000
Linden, N.J.	120,000
Billings, Mont.	42,000
Total	**1,236,000**
Shell Oil Co.	
Wood River, Ill.	274,000
Norco, La.	215,000
Deer Park, Texas	214,000
Martinez, Calif.	140,100
Carson, Calif.	112,000
Anacortes, Wash.	82,000
Odessa, Texas	28,600
Total	**1,065,700**
Amoco Oil Co.	
Texas City, Texas	400,000
Whiting, Ind.	350,000
Mandan, N.D.	58,000
Yorktown, Va.	51,000
Salt Lake City, Utah	40,000
Casper, Wyo.	40,000
Savannah, Ga.	28,000
Total	**967,000**
Texaco Refining & Marketing Inc.	
Ports Arthur/Port Neches, Texas	250,000
Convent, La.	225,000
Delaware City, Del.	140,000
Anacortes, Wash.	87,000
El Dorado, Kan.	81,500
Wilmington, Calif.	57,000
Bakersfield, Calif.	41,000
Total	**881,500**
Mobil Oil Corp.	
Beaumont, Texas	275,000
Joliet, Ill.	180,000
Torrance, Calif.	123,000
Paulsboro, N.J.	100,000
Ferndale, Wash.	77,000
Total	**755,000**
Atlantic Richfield Co.	
Arco Petroleum Products Co.	
Carson, Calif.	214,000
Ferndale, Wash.	162,000
Lyondell Petrochemical Co.	
Houston, Texas	260,000
Arco Alaska Inc.	
Prudhoe Bay, Alaska	20,000
Anchorage, Alaska	12,000
Total!	**668,000**
Standard Oil Co.	
Belle Chasse, La.	198,500
Lima, Ohio	171,000
Toledo, Ohio	126,100
BP Oil Corp.	
Marcus Hook, Pa.	172,000
Total	**667,600**
U.S. Steel Corp.	
Marathon Petroleum Co.	
Garyville, La.	255,000
Robinson, Ill.	195,000
Texas City, Texas	69,500
Detroit, Mich.	68,500
Total	**588,000**
Unocal Corp.	
Lemont, Ill.	151,000
Nederland, Texas	120,000
Wilmington, Calif.	108,000
Rodeo, Calif.	77,000
Arroyo Grande, Calif.	41,000
Total	**497,000**
E I Du Pont De Nemours & Co.	
Conoco Inc.	
Westlake, La.	156,500
Ponca City, Okla.	134,000
Billings, Mont.	48,500
Commerce City, Colo.	43,000
Santa Maria, Calif.	9,500
Egan, La.	2,800
Total	**394,300**
Sun Co Inc.	
Marcus Hook, Pa.	165,000
Toledo, Ohio	125,000
Tulsa, Okla.	85,000
Total	**375,000**
Ashland Oil Inc.	
Catlettsburg, Ky.	213,400
St. Paul, Minn.	67,143
Canton, Ohio	66,000
Total	**346,543**
Coastal Corp.	
Coastal Eagle Point Oil Co.	
Westville, N.J.	90,000
Coastal Refining & Marketing Inc.	
Corpus Christi, Texas	90,000
Derby Refining Co.	
El Dorado, Kan.	30,400
Wichita, Kan.	28,800
Pacific Refining Co. Inc.	
Hercules, Calif.	55,000
Belcher Oil Co.	
Chickasaw, Ala.	26,600
Total	**320,800**
Citgo Petroleum Corp./Petroleos De Venezuela	
Citgo Petroleum Corp.	
Lake Charles, La.	320,000
Phillips 66 Co.	
Sweeny, Texas	175,000
Borger, Texas	105,000
Woods Cross, Utah	25,000
Total	**305,000**
Trans America Refining Co.	
Good Hope, La.	300,000
Koch Industries Inc.	
Koch Refining Co.	
St. Paul, Minn.	155,000
Corpus Christi, Texas	125,000
Total	**280,000**
Total Petroleum Inc.	
Ardmore, Okla.	62,000
Arkansas City, Kan.	53,600
Alma, Mich.	42,000
Colorado Refining Co.[1]	
Commerce City, Colo.	33,500
Total	**191,100**
Kerr-McGee Corp.	
Southwestern Refining Co. Inc.	
Corpus Christi, Texas	104,000
Kerr-McGee Refining Corp.	
Wynnewood, Okla.	43,000
Dubach, La.	10,000
Cotton Valley, La.	7,800
Total	**164,800**
Solomon Inc.	
Hill Petroleum Co.	
Houston, Texas	65,000
Krotz Springs, La.	56,000
St. Rose, La.	34,700
Total	**155,700**
Union Pacific Corp./Petroleos De Venezuela	
Champlin Refining Co.	
Corpus Christi, Texas	155,200
Mapco Petroleum Inc.	
North Pole, Alaska	90,000
Memphis, Tenn.	60,000
Total	**150,000**

Company	b/d
Diamond Shamrock Refining & Marketing Co.	
Sunray, Texas	100,000
Three Rivers, Texas	45,000
Total	145,000
Fina Oil & Chemical Co.	
Port Arthur, Texas	90,000
Big Springs, Texas	55,000
Total	145,000
Tenneco Oil Co.	
Chalmette, La.	145,000
Apex Oil Co.	
Clark Oil & Refining Corp.	
Blue Island, Ill.	64,600
Hartford, Ill.	63,600
Total	128,200
Tosco Corp.	
Martinez, Calif.	126,000
Sinclair Oil Corp.	
Sinclair, Wyo.	54,000
Tulsa, Okla.	47,000
Little America Refining Co.	
Evansville, Wyo.	24,500
Total	125,500
Atlantic Refining & Marketing Corp.	
Philadelphia, Pa.	125,000
Murphy Oil U.S.A. Inc.	
Meraux, La.	92,500
Superior, Wis.	32,000
Total	124,500
Agway Petroleum Corp.	
Texas City Refining Inc.	
Texas City, Texas	119,600

Companies with capacity of 30,001 to 100,000-b/d. Number of companies: 26; Total capacity: 1,372,705-b/d.

Company	b/d
Crown Central Petroleum Corp.	
Pasadena, Texas	100,000
Farmland Industries Inc.	
Coffeyville, Kan.	56,500
Phillipsburg, Kan.	26,400
Total	82,900
LL&E Petroleum Marketing	
Saraland, Ala.	80,000
National Cooperative Refinery Assn.	
McPherson, Kan.	75,600
Tesoro Petroleum Corp.	
Kenai, Alaska	72,000
Pennzoil Products Co.	
Shreveport, La.	46,200
Rouseville, Pa.	15,700
Roosevelt, Utah[2]	8,000
Total	69,900
Coral Petroleum Co.	
United Refining Co.	
Warren, Pa.	60,000
Vulcan Refining Co.	
Cordova, Ala.	9,500
Total	69,500
Pacific Resources Inc.	
Hawaiian Independent Refinery Inc.	
Ewa Beach, Hawaii	67,900
Union Pacific Resources Co.[3]	
Wilmington, Calif.	65,000
Lion Oil Co.	
El Dorado, Ark.	48,000
Paramount Petroleum Corp.	
Paramount, Calif.	46,500
Placid Refining Co.	
Port Allen, La.	46,000
Texas Eastern Corp.	
La Gloria Oil & Gas Co.	
Tyler, Texas	46,000
Seaview Petroleum Inc.	
Paulsboro, N.J.	44,400
Rock Island Refining Corp.	
Indianapolis, Ind.	43,000
Pride Refining Inc.	
Abilene, Texas	42,750
Thrifty Oil Co.	
Golden West Refining Co.	
Santa Fe Springs, Calif.	42,000
Cirillo Brothers Oil Co.	
Cibro Petroleum Products Inc.	
Albany, New York	41,850
Triad Terminal Corp.	
Edgington Oil Co. Inc.	
Long Beach, Calif.	41,600
Cenex	
Laurel, Mont.	41,450
Holly Corp.	
Navajo Refining Co.	
Artesia, N.M.	34,700
Montana Refining Co.	
Great Falls, Mont.	6,300
Total	41,000
Sargent Holdings Ltd.	
Powerine Oil Co.	
Santa Fe Springs, Calif.	35,000
Frontier Refining Co.	
Cheyenne, Wyo.	33,500
Hunt Oil Co.	
Tuscaloosa, Ala.	33,500
Time Oil Co.	
U.S. Oil & Refining Co.	
Tacoma, Wash.	32,000
Young Refining Corp.	
Douglasville, Ga.	5,655
Seminole Refining Corp.	
St. Marks, Fla.	17,000
Laketon Refining Corp.	
Laketon, Ind.	8,700
Total	31,355

Companies with capacity 10,001 to 30,000-b/d. Number of companies: 26; Total capacity: 522,805-b/d.

Company	b/d
Amerada Hess Corp.	
Purvis, Miss.	30,000
Flying J Petroleum Inc.	
Cutbank, Mont.	5,600
Big West Oil Co.	
North Salt Lake, Utah	24,000
Total	29,600
Fletcher Oil & Refining Co.	
Carson, Calif.	29,500
GAMXX Energy Inc.[4]	
Theodore, Ala.	27,000
Trifinery	
Corpus Christi, Texas	27,000
Crysen Corp.	
Crysen Refining Inc.	
Woods Cross, Utah	12,500
Sound Refining Inc.	
Tacoma, Wash.	11,900
Total	24,400
San Joaquin Refining Co. Inc.	
Bakersfield, Calif.	24,300
Pauley Petroleum Inc.	
Newhall Refining Co. Inc.	
Newhall, Calif.	22,500
El Paso Refining Co. Ltd.	
El Paso, Texas	21,600
Kern Oil & Refining Co.	
Bakersfield, Calif.	21,400
Indiana Farm Bureau Cooperative Assn.	
Mount Vernon, Ind.	21,200
Leal Petroleum Corp.	
Nixon, Texas	20,900
Ergon Inc.	
Vicksburg, Miss.	20,600
E-Z Serv Inc.	
Amber Refining Inc.	
Fort Worth, Texas	19,700
Valero Refining Co.	
Corpus Christi, Texas	19,000
Quaker State Oil Refining Corp.	
Newell, W.Va.	12,150
Smethport, Pa.	6,700
Total	18,850
Giant Refining Co.	
Gallup, N.M.	18,000
Texas NAPCO Inc.	
St. James, La.	17,000
Gary Energy Corp.	
Bloomfield Refining Co.	
Bloomfield, N.M.	16,800
VGS Corp.	
Southland Oil Co.	
Sandersville, Miss.	11,000
Lumberton, Miss.	5,800
Total	16,800
Huntway Refining Co.	
Benicia, Calif.	8,600
Wilmington, Calif.	5,500
Total	14,100

Company	b/d
MacMillan Petroleum Co.	
Signall Hill, Calif.	14,000
Calcasieu Refining Co.	
Lake Charles, La.	13,500
Wyoming Refining Co.	
Newcastle, Wyo.	12,555
World Oil Co.	
Sunland Refining Corp.	
Bakersfield, Calif.	12,000
Barrett Refining Corp.	
Thomas, Okla.	10,500

Companies with capacity 10,000-b/d or less. Number of companies: 29; Total capacity: 149,865-b/d.

Company	b/d
City Gas & Transmission Corp.	
Wilmington, N.C.	10,000
Mitchell Energy & Development Corp.	
Liquid Energy Corp.	
Bridgeport, Texas	10,000
Gibson Oil & Refining Co. Inc.	
Bakersfield, Calif.	9,600
Witco Corp.	
Bradford, Pa.	8,500
Lunday Thagard Co.	
South Gate, Calif.	8,100
Anchor Gasoline Corp.	
Canal Refining Co.	
Church Pont, La.	8,000
Claiborne Gasoline Co.	
Lisbon, La.	7,500
Moore & Munger Marketing & Refining Inc.	
Cross Oil & Refining Co. of Arkansas	
Smackover, Ark.	6,700
Petro Star	
North Pole, Alaska	6,700
Thriftway Co.	
Bloomfield, N.M.	6,100
Petro Source Resources Inc.[5]	
Vicksburg, Miss.	6,000
Somerset Refinery Inc.	
Somerset, Ky.	5,500
OGC Corp.[6]	
Egan, La.	5,000
West Coast Oil Co.	
Oildale, Calif.	5,000
Donna Refinery Partners Ltd.[7]	
Donna, Texas	4,750
Mid Atlantic Fuels Inc.[8]	
St. Mary's, W.Va.	4,658
Howell Hydrocarbons Corp.	
San Antonio, Texas	4,500
Nevada Refining Co.	
Tonopah, Nev.	4,500
Calumet Refining Co.	
Princeton, La.	4,207
Oxnard Refinery	
Oxnard, Calif.	4,000
Warrior Asphalt Refining Corp.	
Holt, Ala.	4,000
Martin Gas Sales Inc.	
Berry Petroleum Co.	
Stephens, Ark.	3,700
Crystal Refining Co.	
Carson City, Mich.	3,000
GNC Energy Corp.	
Greensboro, N.C.	3,000
Primary Oil & Energy Corp.	
Chester, Va.	2,400
Kentucky Oil & Refining Co.	
Troy, Ind.	1,000
Betsy Lane, Ky.	600
Total	**1,600**
Motor Oils Refining Co.	
McCook, Ill.	1,500
Petrolite Corp.	
Kilgore, Texas	1,000
Mountaineer Refining Co. Inc.	
La Barge, Wyo.	350

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Footnotes:

[1] Formerly Asamera Oil (US) Inc.
[2] Formerly Seagull Refining Co.
[3] Formerly Champlin Petroleum Co.
[4] Formerly Marion Corp.
[5] Formerly Vicksburg Refining Inc.
[6] Formerly Louisiana Oil Refg. Co. of Egan
[7] Formerly Listo Petroleum Co.
[8] Formerly Quaker State Oil Refining Corp.

Changes in U.S. Refinery Capacity in 1987

On Jan. 1, 1988, the United States had a total of 213 operable refineries. There were nine shutdowns in 1987 and four refineries were reactivated. No new refineries were activated during 1987. Opearable capacity was pegged at 15.9-million b/d, up slightly from 15.6-million b/d, the year- earlier level. The increase substantiated indications that large losses of previous years have been reversed. Closings and reactivations resulted in a net gain in operable crude capacity of 271,250-b/d and upgrading within operating refineries lent another 78,655-b/d.

Refinery Shutdowns in 1987

Refinery	b/cd Crude Location	b/sd Downstream Distillation Capacity	Years In Charge Capacity	Operation
Beacon Oil Co.	Hanford, Calif.	17,300	11,380	27
Clark Oil & Refining Corp.	Mt. Airy, La.	0	27,000	39
Flying J. Petroleum, Inc.	Williston, N.D.	4,600	5,450	32
Lakeside Refining Co.	Kalamazoo, Mich.	5,600	0	39
MacMillan Petroleum Co.	Norphlet, Ark.	5,800	2,700	39
Sabre Refining Inc.	Bakersfield, Calif.	10,000	0	16
Silver Eagle Oil Co.	La Barge, Wyo.	3,000	0	13
Virginia Oil & Refining Co., Inc.	Jonesville, Va.	1,000	0	2
Western Oil & Refining	Long Beach, Calif.	19,200	0	11

Reactivated Refineries in 1987

Refinery	b/cd Crude Location	b/sd Downstream Distillation Capacity	Charge Capacity
Donna Refinery Partners, Ltd.	Donna, Texas	4,750	0
GAMXX Energy Inc.	Theodore, Ala.	27,000	10,000
Petro Source Resources, Inc.	Vicksburg, Miss.	6,000	7,900
Trans America Refining Co.	Good Hope, La.	300,000	520,000

Reclassified Refinery in 1987

Refinery	b/cd Crude Location	b/sd Downstream Distillation Capacity	Charge Capacity
Paramount Petroleum Corp.	Bakersfield, Calif.	20,500	34,800

Refinery Sales in 1987

Former Owner	Location	b/cd Crude Capacity	New Owner
Asamera Oil (US) Inc.			
Colorado Refining Co.	Commerce City, Colo.	33,500	Total Petroleum North America, Ltd.
Champlin Petroleum Co.	Corpus Christi, Texas	155,200	Union Pacific Corp. (50%), Petroleos De Venezuela (50%)
Chevron			
Caribbean Gulf Refining Corp.	San Juan, Puerto Rico	36,000	First Oil International Ltd.
Listo Petroleum Co.	Donna, Texas	4,750	Donna Refinery Partners, Ltd.
Louisiana Oil & Refining Co. of Egan	Egan, La.	5,000	OGC Corp.
Marion Corp.	Theodore, Ala.	27,000	GAMXX Energy Inc.
Paramount Petroleum Corp.	Bakersfield, Calif.	20,500	Texaco Refining & Marketing
Quaker State Oil Refining Corp.	St. Mary's, W.Va.	4,658	Mid-Atlantic Fuels
Vicksburg Refining Inc.	Vicksburg, Miss.	6,000	Petro Source Resources Inc.

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b/cd = bbl. per calendar day; b/sd = bbl. per stream day

Source: Energy Information Administration, Petroleum Supply Annual 1987, published in May 1988.

Shell and Working Storage Capacities—1986

Shell Capacity (Add 000 bbl.) (a)

		Gasoline			Fuel Oil				
	Crude Oil	Finished Leaded	Finished Unleaded	Blending Components	Middle Distillates	Residual Fuel Oil	Asphalt and Road Oil	Total Products(b)	Total Crude Oil and Products
PAD District 1 Total	**27,665**	**3,696**	**14,511**	**12,255**	**22,491**	**13,452**	**5,277**	**104,029**	**131,694**
New Jersey	9,471	1,744	6,724	6,846	12,087	6,818	1,954	48,730	58,201
Pennsylvania	11,676	1,016	3,619	2,999	4,362	2,665	1,265	28,160	39,836
Other States(c)	6,518	936	4,168	2,410	6,042	3,969	2,058	27,139	33,657
PAD District 2 Total	**26,987**	**11,454**	**18,095**	**18,002**	**26,786**	**6,893**	**12,665**	**148,427**	**175,414**
Illinois	7,625	2,911	4,669	5,358	7,139	1,784	2,060	40,414	48,039
Indiana	2,940	908	2,303	3,140	3,561	1,600	2,382	19,826	22,766
Kansas	3,164	2,258	2,972	1,632	3,516	595	955	20,541	23,705
Kentucky	1,222	263	549	398	617	405	753	5,907	7,129
Ohio	2,637	639	1,872	2,573	1,923	422	906	12,886	15,523
Oklahoma	4,384	2,357	2,554	2,688	4,131	469	1,657	24,612	28,996
Other States(c)	5,015	2,118	3,176	2,213	5,899	1,618	3,952	24,241	29,256
PAD District 3 Total	**107,322**	**12,477**	**28,306**	**36,972**	**43,841**	**23,657**	**7,466**	**318,747**	**426,069**
Alabama	2,549	304	408	762	871	945	662	4,514	7,063
Arkansas	1,646	116	166	148	704	97	751	2,182	3,828
Louisiana	28,108	2,526	7,519	11,614	16,374	8,176	1,706	89,072	117,180
Mississippi	4,394	689	1,968	1,775	2,428	665	1,118	10,612	15,006
New Mexico	973	238	230	790	580	419	483	4,314	5,287
Texas	69,652	8,604	18,015	21,883	22,884	13,355	2,746	208,053	277,705
PAD District 4 Total	**4,880**	**2,893**	**2,168**	**4,828**	**4,670**	**1,279**	**5,010**	**27,268**	**32,148**
Colorado	883	353	401	609	612	237	593	3,792	4,675
Montana	1,444	788	561	1,650	1,300	235	1,810	8,402	9,846
Utah	1,462	590	485	1,151	1,126	283	442	5,604	7,066
Wyoming	1,091	1,162	721	1,418	1,632	524	2,165	9,470	10,561
PAD District 5 Total	**48,201**	**5,030**	**11,831**	**19,016**	**12,934**	**16,979**	**4,007**	**122,586**	**170,787**
Alaska	1,103	86	251	291	847	1,173	69	3,648	4,751
California	34,643	3,585	9,857	15,617	9,152	12,932	2,988	98,788	133,431
Washington	8,318	1,304	1,555	2,417	2,342	1,436	351	15,119	23,437
Other States(c)	4,137	55	168	691	593	1,438	599	5,031	9,168
U.S. Total	**215,055**	**35,550**	**74,911**	**91,073**	**110,722**	**62,260**	**34,425**	**721,057**	**936,112(d)**

Working Storage Capacity (Add 000 bbl.) (a)

		Gasoline			Fuel Oil				
	Crude Oil	Finished Leaded	Finished Unleaded	Blending Components	Middle Distillates	Residual Fuel Oil	Asphalt and Road Oil	Total Products(b)	Total Crude Oil and Products
PAD District 1 Total	**23,664**	**3,320**	**13,069**	**10,444**	**20,660**	**12,551**	**4,736**	**93,392**	**117,056**
New Jersey	7,837	1,555	5,986	5,601	11,091	6,361	1,691	43,323	51,160
Pennsylvania	10,284	917	3,188	2,669	3,948	2,392	1,102	25,401	35,685
Other States(c)	5,543	848	3,895	2,174	5,621	3,798	1,943	24,668	30,211
PAD District 2 Total	**23,699**	**10,206**	**15,856**	**15,787**	**24,692**	**6,274**	**11,615**	**134,148**	**157,847**
Illinois	6,431	2,374	3,903	4,563	6,515	1,592	1,932	35,841	42,272
Indiana	2,530	811	1,974	2,639	3,168	1,479	2,068	17,457	19,987
Kansas	2,902	2,153	2,673	1,424	3,312	541	865	19,049	21,951
Kentucky	1,164	251	523	376	587	383	717	5,696	6,860
Ohio	2,307	547	1,620	2,224	1,735	325	844	11,309	13,616
Oklahoma	3,838	2,123	2,336	2,558	3,814	433	1,480	22,433	26,271
Other States(c)	4,527	1,947	2,827	2,003	5,561	1,521	3,709	22,363	26,890
PAD District 3 Total	**83,037**	**10,799**	**24,600**	**31,972**	**38,704**	**20,896**	**6,541**	**278,674**	**361,711**
Alabama	2,218	267	365	702	753	809	521	3,896	6,114
Arkansas	1,487	104	149	138	652	86	679	1,989	3,476
Louisiana	23,413	2,132	6,291	9,422	13,916	7,272	1,407	76,299	99,712
Mississippi	3,925	617	1,788	1,670	2,259	613	962	9,681	13,606
New Mexico	867	201	183	721	488	350	473	3,790	4,657
Texas	51,127	7,478	15,824	19,319	20,636	11,766	2,499	183,019	234,146
PAD District 4 Total	**4,334**	**2,595**	**1,932**	**4,353**	**4,378**	**1,189**	**4,722**	**24,996**	**29,330**
Colorado	731	324	366	557	583	217	576	3,516	4,247
Montana	1,248	700	494	1,481	1,221	217	1,687	7,716	8,964
Utah	1,330	511	414	1,021	1,055	259	409	5,027	6,357
Wyoming	1,025	1,060	658	1,294	1,519	496	2,050	8,737	9,762
PAD District 5 Total	**41,670**	**4,331**	**10,240**	**16,606**	**11,521**	**15,377**	**3,749**	**108,225**	**149,895**
Alaska	1,037	81	237	277	806	1,124	66	3,471	4,508
California	29,497	3,008	8,467	13,559	8,016	11,566	2,774	86,614	116,111
Washington	7,330	1,192	1,381	2,122	2,143	1,318	339	13,400	20,730
Other States(c)	3,806	50	155	648	556	1,369	570	4,740	8,546
U.S. Total	**176,404**	**31,251**	**65,697**	**79,162**	**99,955**	**56,287**	**31,363**	**639,435**	**815,839(d)**

(a) Shell capacity is the design capacity of a tank; working capacity is the difference between the maximum safe fill capacity and tank bottoms; (b) Total products include ethane, isobutane, pentanes plus other hydrocarbons, hydrogen, alcohol, unfinished oils, finished aviation gasoline, special naphthas, coke, wax, still gas, petrochemical feedstocks, and miscellaneous products; (c) Other states include: PAD 1—Connecticut, Delaware, Florida, Georgia, Maryland, New York, North Carolina, Virginia and West Virginia; PAD 2—Minnesota, Missouri, North Dakota, Tennessee and Wisconsin; PAD 5—Hawaii, Nevada and Oregon; (d) Includes 30.5-million bbl. at shutdown refineries and 34.5-million bbl. at gasoline blending plants.

Source: Energy Information Administration, Petroleum Supply Annual 1987, published in May 1988.

U.S. REFINING CAPACITY 1977-1987

(in thousands of b/d)

/——OPERABLE REFINERIES——\

(As of Jan. 1 of each year)

Year	No. of Refs.	Chng. from Prec. Year	Operable Capacity	Chng. from Prec. Year
1988	213	−6	15,916	+350
1987	219	+3	15,566	+107
1986	216	−7	15,459	−200
1985	223	−24	15,659	−478
1984	247	−11	16,137	−722
1983	258	−43	16,859	−1,030
1982	301	−23	17,890	−731
1981	324	+5	18,621	+632
1980	319	+8	17,989	+547
1979	311	+9	17,441	+393
1978	302	+11	17,048	+650

Source: Energy Information Administration, Petroleum Supply Annual 1987, plus industry sources for supplemental data.

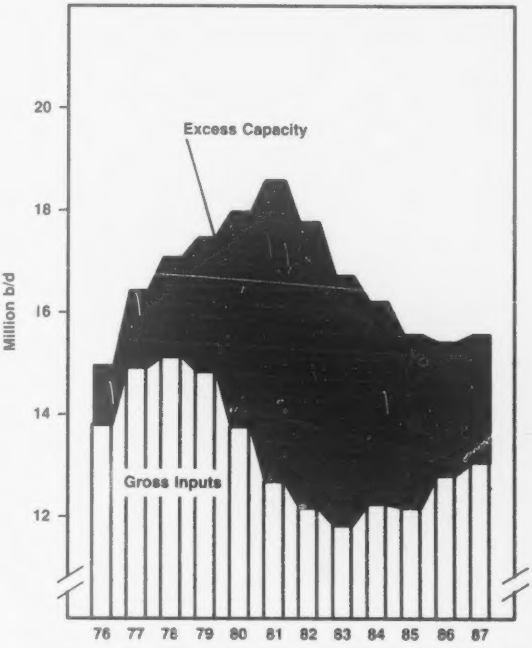
/——INPUTS AND UTILIZATION——\

(Avg. for calendar year)

Year	Gross Input	Percent Utilized	Percent Idle	Excess Volume
1987	13,003	83.1%	16.9%	2,690
1986	12,826	83.0	17.0	2,633
1985	12,165	77.6	22.6	3,494
1984	12,216	76.2	23.8	3,921
1983	11,947	71.7	28.3	4,912
1982	12,172	69.8	30.2	5,718
1981	12,751	68.5	31.5	5,870
1980	13,834	76.9	23.1	4,153
1979	14,955	85.7	14.3	2,486
1978	15,071	88.4	11.6	1,977

Source: See above footnote.

Gross Inputs and Excess Capacity



Source: For 1975 through 1986, Energy Information Administration, Annual Energy Review, 1986. For 1987, Petroleum Supply Annual, 1987.

Refinery Turnaround Continues in 1987

Following a five-year slump beginning in 1982 and continuing through 1986, the domestic refining industry appears to be on a solid road to recovery, according to the Energy Information Administration.

EIA's latest data indicates that the long downslide bottomed out in 1986, with the upturn continuing the following year. Whether this upward movement will continue remains to be seen. One thing is certain; recent increases in product demand has capacities at many U.S. plants stretched to the limits, meaning that the bulge in excess capacity of the last few years will undoubtedly be trimmed considerably when current year figures are compiled.

EIA reports that U.S. operable crude oil distillation capacity increased from 15.6-million b/d as of January 1, 1987 to 15.9-million b/d on the same date in 1988, an increase of over 300,000 b/d. The number of operable refineries, however, actually decreased by six during the same period, with nine plants shut down and four reactivated. The nine closed refineries were all small capacity units totaling only 66,500 b/d, while the four reactivated plants contribute an additional 337,750 b/d to the U.S. refinery pool, with a whopping 300,000 b/d coming from Trans America's Good Hope, La. facility which went back onstream in November 1987.

Upgrades of existing refineries added another 78,655 b/d to the capacity total, EIA says.

Refinery utilization rates are also on the upswing, quite dramatically from the low utilization rates of the early 1980s, according to EIA's data. This, of course, has a dampening effect on the industry's burdensome excess capacity of recent years. For 1987, the average U.S. utilization rate had climbed to 83.1%, a slight increase over 1986, but a big jump over the low rate of 68.5% recorded in 1981.

In terms of volume, the higher throughputs of 1987 reduced the excess capacity gap of 1981—an enormous 5.9-million b/d—to a more manageable (and profitable) 2.7-million b/d in 1987.

Refinery yields remained fairly stable in 1987, the EIA points out. Yields for motor gasoline averaged 46.4% compared with 44.5% in 1980 and 45.6% in 1986. This was slightly below the peak year of 1983 for gasoline when the yield was 47.4%. The distillate fuel oil yield in 1987 was 20.5%, compared to 21.2% in 1986. Residual, which dropped sharply in the 80's in terms of yields, moved down another notch in 1987 to 6.6%. Jet fuel on the other hand, which has supplanted residual fuel as one of the top three petroleum products put out by refineries, moved up to a 10.0% yield in 1987.